#### Argus700 Series 2.

**FERRANTI** Computer Systems

C8031251070 📶

#### NEWS IN BRIEF

#### Jamie for top tournament

JAMIE Gordon, the schoolboy whose chess career Computer Wiedly is sponsoring, has been invited to take part in the Lloyds Bank Junior Tuurnament, August 20 to 28.

Thirteen-year-old Jomic was offered a place in the tournament un the strength of his performunee in the London ·Evening Stundard contest, where he won four of the six games he played. He is currently taking part in the British Open Championships in Brightan.

#### X25 software

coming, following a maeting between industry Commis-SOFTWARE to support direct connection to X25 packet sioner Vicomte Davignon and officera of the European Inde-pendent Informatics industry switched networke has been announcéd for the NCR Comten 3600 range of communications Association. processors, which are offered as direct alternatives to IBM's 370X monay for innovation and SNA communicationa proces-

#### New divisions

THE motor trade orionted services company, Kalamazoo Business Systems of Northfield, Birmingham, hae set up two new sales divisions, one to handle all ita systems for the motor trade and the other to market Kalamazoo's K2000 and K250 microcomputers.

#### DP for the masses

A NON-PROFIT educational corporation called the Peopla's Computer Company is joining the Menio Park Libra'ry in a project designed to bring "computer literacy" to the whole of the 27,000 population of Menio Park in California by using the community centre, schools and volunteer instructors volunteer instructors...

Are your DP plans being

frustrated by DEC's long

Bunzi Deta Systems offer you

and 11/70 besed configurations.

configurations (pending dalivery of

your 1,1/44,??)

Cumbria House,

Immediate delivary on selected PDP 11/34

Heasonable delivery times (three to six months) on PDP 11/44 pased configurations ()
 Short ferm rental of PDP 11/34 based

A comprehensive range of packages covering Accounting, Rayroll, Stock and Production Control, Financial Modelling and Fixed Assets Accounting.

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Tel: Leighton Buzzerd (0525) 3774/7 Telex: 826658

Höckliffa Street Lagraton Mazerd

Lecturosis of U.7. Le

delivery lead times?



according to a study carried out for the Equal Opportunities Commis-

The researchers, who had been looking into the significance of microelectronics for women's jobs. have decided that in the short term there will only be a reduction of 2% in copy typists' jobs, while in the longar term by around 1990 the effect will be somewhat greater. Case studies of 10 organisations were corried out by Dr Emma Bird,

EEC cash likely

ennsultancy Communicationa More often, word processors Studies and Planning. Where thair were being used to free secretaries to do other things. There had been results differed from previous

forecasts was in the number of jobs diaplaced by each word processor. While white collar union Apex has been assuming each machina dispisced one person, Dr Bird and her colleagues found it took three machines to lead to the loss of one typist's job. This was because full productivity gsins were only achieved in the relatively small number of cascs where typing was organised very efficiently in a cen-

general, and the amoothing out of regulations that obstruct

Money sought

Some way of funding innova-

tion was also being sought. Dr Heimer explained, "Our members are jealous of Japanese

government grants, which are given to whole industries." The US Small Business Aot was cited

as a problem; under this, 50% of

the value of US government

trade within the EEC.

be an underestimation. By 1990, Dr Bird expects 170,000 units to be installed, and with greater use expertise and better equipment, the displacement retio may than approach i:1, ahe thinks.

no redundencies in the firms

21,000 jobs displaced, and these are

typists' jobs, not secretaries'. A

volume of work done, but this moy

Particular emphasis has been pleced in the study on the nature of joba in addition to thair number. Of 51 word processor operators questioned, 36 aaid their jobs wara more satisfying now than they had been with

### **IBM** realigns for office market

REFIECTING the growing interaction between the office and computer businesses, ISM is merging the development and the manufacturing units of its General Systems and Office Products groups in the US into a new information Systems Division. GSD and OPD sales forces will remain senants entities.

will remain separate entities.

18M's vice-precident, manufacturing, Robert Dunlop is to be precident of the new division, which will have responsibility worldwide for development, including programming, and for manufesturing in the US.



Weekly Iliat he found Davignon "very interested to get to know what le going on" in the industry

monopolised by the lobbyists of large firms (CW, April 17). The President, Dr Antoniua Helmar of Outch printer firm Daisy Systama, told Computer government purchasing

are all hoped to flow from

Keen to help

software producte to help make

their views known to politicians,

whose attention tends to be



for small DP firms

Among the topics Dr Halmer was pressing with the Commissionar ware: Standardisation of

purchases have to go to small bualnaasee. This would not necesserily work in Europe, Dr Halmer said, but the issua should be considered. Government purchases act in effect as hand-Davignon already has regular and keen to help it fand off overseas competition.

#### meetings with tha heads of large European firms; his commitmant to talk with the association le in addition to this. The next meating is scheduled for Sap-

## 300-Mbyte drive for PDP and Vax

A 300-megabyte disc drive for PDP 11/70 and Vax 11/780 users has been announced by Digital Equipment in the US. It is also understood to be praparing a smaller Vax 11/580 for launch later this year and two more Vax machines are believed to be in the pipeline.

The 300-megabyta drive, tha 11/780. almost doubling the previous biggest disc offered by DEC; is called the RM05 and costs \$44,000 with controller or

\$34,000 as an add-on.

The drive is thought to come from Control Oata, but OEC will say merely that it is from an "outside source".

The Vax 11/580 is reported to be under tast at a user site. It is a two-board system and DEC is also thought to have a single-board version of the 32-bit processor under development as well as a top-and model above June

The Vax has turned into a

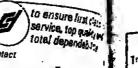
runaway winner for OEC eince the compeny etarted selling tha mini into the commercial market. Originally announced with very little software, the Vax has been substantially in hand a least the control of the control been substantially enhanced in this respect and companies writing business software for top end PDP-11s are adapting it to move their customers up to

The 32 bit mint was a

## Software stralljacket

end IT were penicked into by the superior performance of the asset is as a listady penicked into by the self is a listady penicked penicked into by the self is a listady penicked penicked in the self is a listady penicked penicked penicked penicked penicked penicked penicked penicked penicked as a listady penicked pe

alao avalleble ex-slock. COMMA



Tomadesign manufacturers of High Qu

COMPUTER FORM Rush Deliveries Are Our Speci NATIONAL WORKS HALL STREET, DUOLEY WEST MIDLANDS DIIDLEY (0384) 213061

# On the basis of current sales trends, Or Bird estimates there will be 64,000 WP keyboards installed in the UK in 1985. This indicotes rough allowance has bean made in these figurea for growth in the

THE UK standard teletest me term used in the BBC's Coder and the IBA's Oracle period has emerged as the clay favourita for a US teletest standerd. The UK system and more votes than the Free Antiope or Canadian Telebra systems in the secret belief members of a committee star by the Electronic Industr Association to decide of

standard (CW, August 7).
But a apokesman for Federal Communications (and mission, which has the find a on any standard, told Compa waa unlikely to set hard aid teletext standards, merely fining minimum standed covering things like him

The apokesmen for the mission's broadcast burses that it wee setting a treatment that it weeks the setting a treatment of the control of the from over-regulation. "We'rather let the market fight it ov Some of our standards hav been wrong in the past, such as when we set a colour TV statudard with eignals which could not be accepted by the monochrome set.

One member of the ELA presented with a distinct preference.

mittee with a distinct preferant for Antiope lathe CBS network

# Micro Nove Systams and DG Terminal

for the MP200 systems. Systems range from the disc through cartridge to Winohester storage.
Comma offer off the shelt delivery of complete.

Mioro Nova Packaged Systems as well as: Expansion Memories: Communications Options Interfacee and comprehensive Operating Systems Software.
Date General Printers and Dasher Terminals 818.

BRENTWOOD (0277) 811131

From the system builders. The system builders' computer.

Argus700 Series 2.

FERRANTI Computer Systems

Number 721

Thursday, August 28, 1980

SPOT THE DIFFERENCE...

The striking resemblence between Tendy's TRS-80 pocket computer end Shep's PC12I1 can only be attributed to the feot that they are besteally

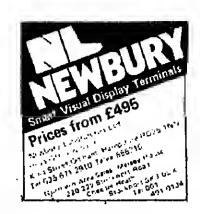
BAR-PHARRACTICATI

**IBM frees 8775** 

to fight the 3270

THE powerful IBM 8778 diaplay cursor only moves within that terminal, announced with the sector, and wraps text mound at

Price 20p



# backing for UK nervous as UK teletext word processing slumps in States

by Rory Johnston

MAJOR cutbacks in staff at two US word processing suppliers are raising fears that the recession is going to affect seriously this hitherto booming business.

Several UK suppliers are finding sales considerably slower than a few months ago, but at the same time several companies report in a several companies report i ago, but at the same time several companies report increased sales and little slacking in interest from customers.

**Briefing** 

### Prizes for programmers

YOUNG programmers can win 1400 for themselves and £1,000 400 for themselves and £1,000 connection organized by Bar-chin Bank and the University of Kent with the Idea of foetering british talent for good quality

Compelitors have to dealgn and write a computer program which has a practical application. There are two classes, inder 16 and under 19, and the inning student in each cataory will get a Kent. Software Trophy and the cash prize.
Closing date for entries is
February 28, 1981.

#### Apple floats

CAUGHT by a US Federal law which says that a company with the straight stra the year and 10 double in 1981,

## First chairman

been agreed by the two parties, giving the Detroit based manufacturer a broadly-based activaries and a services operation to compete with those officer december 13 1979) is now ered by Control Data and IBM (CW. August 21). Under the property vinken, precident by SDC's shareholders Burnally Elsevier NDU Suripa total of \$98 million.

SDC, which had a nine-month leter and tabase services and tumover of \$118,519,000 for the anijhe database services and leter operators

Olivettl in the US is laying off 700 sales and marketing staff and closing down 15 of its 38 direct sales offices. month to sell what thay would

It is switching its emphasis to seiling through dealers, of which there are now 500, and this is hoped to grow. It is understood that the company has been making considerable losses in move in a week a year ago. Consultant Kelth Wharton, however, reports a aharp increase in enquiries over the last two months, indicating that perhaps in six months' time

AM Jacquard has announced the trimming of 110 staff in all departments in the US, 15% of its ihese sama cuatomers will start placing orders with auppliars. Some customers are being enworkforce, in anticipation of couraged in their plans to buy word processors by the need to increase efficiency to get by with fewer staff. This is the experience of Eric Jonea of Data Recall, whose staff has shrunk from 130 to 110 since Fabruary what the company calls "recessionary pressures in the months shead." President Edgar Bolton has resigned to puraue other business interests and has been replaced by Gaorga Vosatka, formerly of the Tymby wastage, but who le axpec-ting sales of £3.8 million for the share bureau.

#### Comfortable

Jacquard'a cutbacke follow. tha closing down of its UK direct eales network (CW, June 12). Nevertheless, David Lee of Jacquard UK affirma that the compsny here is getting "a comfortable amount of business" now.
Other suppliers in the UK are getting noticeably fewer en

Price of a word USERS who want to add their own personal words to the standard 373 word set offered with Texas Instruments' volce/synthesis products can get the company to do it for them — at the To add one extra word in

current half year compared with £1.7 million for the sema period

## Price. To add one extra word i Adapso warns on Burroughs \$98m buy

la year and lo.double in 1981. of one of the largest US systems of "maximum separation" for the largest US systems of "maximum separation" houses and bureaux, Systems that is, they do not compate than Stanley. Devalopment Corp. has now unfairly by getting subsidies and

turnoser of \$118,519,000 for the period the to March 1980, is best known for its specialist work in the online scientific information.

aervice and nawspaper production systems. A large and ambitious version of the newspaper from Control paper system is being installed paper system in SDC considerable of all digital difficulties use of the size in the size of ADAPSO. He was a system paper system in the size of the size of the size in the size of the size

# able on the 4331. The 4331 includes an integral 3705 processor for running the SNA Network Control Program, and the availability of the Igop adaptor mesna that the 4331 could be used to support 3600 banking terminals in a one branch bank, or as an in-store computer supporting 3650 chain store on 3660 support market; pointobs meterminals in

8100 remote processing system (CW, October 12, 1978) is now

offered with SDLC support as an

alternative to 3270s on 1BM 370,

303X and 4300 series machines.

IBM has also amounced that the SDLC, loop, used for connecting 3600, 3840, 3850 and 3860 SNA function terminals to their.

controllers — and for attaching 8775s to 8100s — is now avail-able on the 433i.

#### Divided The 8775 is driven by

and software combined and software combined and software combined and has a sefect within can be divided under local program Dreyer said; was to look at in control into up to alght formation rather than equip separately addressable sectors ment. Once allocated to a sector the

#### INSIDE THIS WEEK'S CW ....

Computersies
Letters to the Editor
less impactants Libryd'
Thousands new John
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Socia [Nexton (nimed)

JOB OPPORTUNITIES: PAGES: 17-31



IMPORT controls un electronic cash registers imported from Japan are heing demanded by the unions involved with Chubb Cash, the Brighton-based ECR builder where staff are on short

The Canservative MP for Brighton Kemptown, Andrew Bowden, has promised the unions that he will put pressure on Trade Secretary John Nott to stop the Import flood of Japanese ECRs.

But Chubb Cash sales director mes Anderson tald Computer Weekly that the new redesigned low cost ECRs promised two years ago (CW, July 8, 1978) wnuld be launched "within the next couple of months" and thatthey would be built of Brighton.

Chris Darke, national organ-iser of TASS, the white collar worker section of the Amalga-mated Uninn of Engineering Workers, said he was shocked that a decision to close the Brighton plant appeared to have been made despite assurances by management that no state-ment would be made without prior consultation with workers.

The Brighton operation was taken over by Chubb in late 1976 from Gross Cash Registers and renamed Chubb Cash at a time when it had already boan in severe financial difficulties forseveral years. In 1977, 420 people were made redundant:

According to James Anderson the new ECRs will be a development of the existing range but will incorporate a lot of changes

To the continue of the continu

#### New from Cifer... ... the 2684 Urer Programmable Terminal

which will the Cifer 2004 User programmet is terminal at the top and of the 2600 range of compatible VDU's: The 2684 in full 64K bytes of user RAM, supporting industry Standard operating system with in built 260K byte floopy disc drive

a separate VDU processor provides all the features of the 2632 terminal

which sots as e 'front and' processor Oual Z80 processora. Single and Double Danaity Olsc

the sector boundary. The VDU has also been enhanced with a

acrolling feature, and la

than the 3270.

ergonomicaliy more attractive

The loop adaptor for the 4331 is supported only under DOS/ VSE, CICS/DOS/VS and ACF/

VTAME. A down-line load utility for VSE has also been announced.

Full range of CP/M compatible

Industry standard 24 x 80

Display, Top quality (TOO key deteched keyboard, Compact Housing,

CIPER SYSTEMS LIMITED







**US** launch of teletext

**CBS** backs French

system for

CBS has entered the telepext

ring, it looks as if the system of hrnadcasting text to domestic

## COMPUTER WEEKLY

Thursday August 28, 1980

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Compater Wenkly land a directle-fice sich weich of over 10,000. Including the highest tally requ-cited direction in the UK. Compater their is and top at the particular termina measure in the UK and its said termina measure in the UK and its said termina personal a fee UK and its said terminated person years and transition. And a regional is for mempating transpetient feemen by tenestants, included terminated tenestants, and mempating in the person of the person of the compating terminated property and and the com-preparation, specifics, assignment units and

means of generating cobol programs for the nuffmal type of pusheer applications. Where is the gampetisting between substitution of the number of supercoding.

Coors by the way is not the competition of supercoding the 

GOVERNMENT COMPUTER REQUIREMENTS

## **COMPUTERVIEW**

THE loss, now almost certain, of a major electronic and communications equipment contract in Iraq to France highlights nne aren where even non-interventionist governments cannnt afford not to get involved.

Plessey complains that award of the contrect to Thomson-CSF of France will be as a result of the French overnment giving Thomson better finencial backing for the deal than the UK could offer.

The rights and wrongs of the case are not cleer cut becouse buying jobs wholesale hy taking a loss on export contracts — as with the deal to build ships for Poland — is a shortsighted way of doing business.
It does seem clear, however, that where high techno-

logy industries of the future, like computers and electronics, are involved, it is incontrovertible that British componies must get their full share, even if it means that we hove to start playing the game tha French way rather thon the "British."

An example of the kiada of thing which may be necessary is Univac's decision to instell an 1100/10 mainframe in Peking at its own expense in order to train Chinese engineers and programmers ant just in US computer techniques, but in specific Univac techniques. The thinking mirrors that of the Jesuits' "Give me a child until the oge of aeven ond he's mine for life." Once troined, Univac hopes that the Chinese personnel will put Univac top of their personal list when specifying

Univac needs to do it in port to break down an entrenched pro-IBM blos in China,

Just like the avorage company chairman, the Chinese know that IBM io very big, very auccessful and very profitable. Biggest equates with best in their minds, and

nf the present government in general terms, I am convinced

that it le right in deferring a

decision on the PAYE system,

end in suggesting that a "small

machine" approach ahould be

considered.
As you said in a front page article on the subject (CW. August 8) "the one big adven-

tage of the national network

approach would have been

where in the country relating to any individual." With edvan-

another.

Come off it. Clairel My oompany is already using the ICL
DDS and is currently evaluating
SuperCobol: DDS is a means of

computersing data and systeme analysis documentation which, as a by-product allows one to generate Cobol data definitions. Super Cobol provides a fast means of generating Cobol pro-

inc access to racords ony-

LETTERS to the EDITOR

a decision on PAYE

ment, either.

Govt right to defer

# Time to get

so when a project financed by the United Nationa Development Programme came up last year, the Chinese had already made up their minds they wanted iBM, and had to be cajoled into even looking at the offerings of other companies.

The problem is that without cubstantial government backing no European computer company is likely to be eble to afford to take such a substantial riak ee Univac le taking in China, given that country'e hiatory of violent

end regular political U-turns.
The French government fully recognises this. It is much less clear that the British government does.

All round the world, British and French missions ere

woolng likely national government proapacts. The British seem to be ahead of the flaid in Mexico, it looks like level-pegging in Greece, while in Argentina and China tha French appear to have a clear and aubatantial

The one cheering plece of newe on the economic front is that despite all the woc from the Cossandras about the strength of aterling killing Britain's export trade, the export figures for the last three months have atubbornly relused to foll - and there le enormous demand right

interest rates for exports outside the Common No. since they are both subsidised (currently cost; a graw) and guaranteed by the government the demand reflects export contracts to come through

The question is whether this level of green aupport ie sufficient when it comes to high leday orders, orders which frequently involve polices enormous follow-on business, and can establish by cular company as the principal supplier to the for a generation.

Cartolnly the havaring over whether or not to gar Inland Revenue contract to ICL is the kind of height exports that no British company needs. The input customers are those in the Third World who will have anything which has not got e fulsome government of approval at home.

Excluding oil, Britain still exports a substant higher proportion of its output than eny of its accompetitors, including West Germany, Japan to and France.

British companies like ICL and Racai see's covering" Europe, a market Isrgaly neglected that was so much easier to sell to the US and he best epecking former colonies. And sterling has an drematically against major continental currences there is no "strong pound" excuse for failure here led by iCL, the high tachnology companies as her ning to succeed in continental Europe.

With a little more intelligent and creative higher their friends in government, they could do more in

right round the globe.

• Report—Page five.

# Itel presses Lloyd's for quick settlement

idden itel is threatening Lloyd's underwriters with ligation if the settlement they have been discussing since irly this year (CW, January

24) is not canciuded soon. Under the deal, Lloyd's is supposed to take over the emarketing of Itel's lease base if IBM 370s and assume resonsibility for Itel's debts to he banks which financed the

in return, itel will nay Lloyd's up to \$100 million so the debts will be effectively lit between the two eldes. The leases are covered by now famoue Lloyd's "J"

residual values of the equipment in the case of early ter mination. With the values of IBM 370s hit by sales of the 303X and 4300 series, itel's claims on Lloyd's without a settlement could amount to \$200 million over the next few years - if itel survives.

The settlement will probably reduce Lloyd's total pay-out significantly, but if Itel goes bankrupt before the deal is concluded Lloyd's underwriters could get out of having

The B920 has five processors

Iwo are dedicated to actual

computation, one runs the

operating system, and there is

one file processor - effectively a diso controller with substential

Intelligence. The fifth is a com-

municotions control processor.

Two further "task" or computa-

tion processors and one further

communications procassor con

256K-bytes to the operating ays-

Eech processor has its own

be added, 'i'

Lloyd'a has already admitted that underwriters could be

Itel's losses for its 1979

financial year have yet to he published but are expected to come to a frightening \$430 million. The San Francisco leasing company is still trying to negotiate the restructuring of its large debts with its ban kers.

Meanwhile, Linyd's under-writers have negotiated an unusual settlement with Commonwealth Leasing of Florida. Under the deal, they will pay Comminwealth about \$10 mililon as a "fuil and final settle-

ment" of Ite claims. The Commonwealth deal is

are being paid out on a regula month-by-month basis ove several years and make up the difference between the actual rental flow the lessnr is receiving from the lessee and the rental figure originally

Thousands of these pay ments are now heing mude each munth no behalf of Lioyd's hy First National Bank

Lloyd's still has to face the \$630 millinn law sult started last year by Federal Leasing of McLeon, Virginia, which was the result of underwriters not psying some Federal claims.

> s engineering inharmtaries for the mist 18 months.

French win the day.

oleculed to go along with April oper transmitted at a rate of 5.72 megabits per second, as the national teletext standard. CBS engineers say that Anti-

TV sets is ready to take off in the ope is more flexible and versatile than the UK systems. Problem is that while the "There are those who say tha Electronics Industry Association is gning for the UK Ceefnx/ Antiope is more complicated than the British systems," says one CBS executive, "and for the Orncle standard, CBS is hacking Antiope (CW, August 14). The ElA vote for the UK system was

short term, they are correct. The Antiope decoder needs a hi not conclusive either, and CBS more memory. But we feel cnncould still enaure that the fident that Antiope will excel in the long run." CBS adds that Antinge is de

CBS has been testing with the nglish and French systems in signed in such a way that addition of functions to allow viewers in luteract with data on As a result of these tests, CBS the screen would be easy.

#### AT&T reshapes for move into services market

operations in prepare for its en- - its operating subsidiaries. try into the computer services market has been onnounced by US telephonee glant AT&T.

It has separated its business into two divisions, one of which will offer all eervices and equipment which have been released from Federal Communications Commission regulation. The plant eurronaly ampleys 885

people and should grow to 1,000 before the and of the decade.

The picture shows the da Fermani brothers, Saelt and Sebestien either side of the development The other will continue to provide atandord telephone service to the vost majority ni US

A REORGANISATION of its does not already own in four of A new company, AT&T in-

ternotional, la also being formed to handle all its overseas opera-AT&T is moving back into the

internetional market, having lost its overseas operations in

#### 'YDUs are safe

Thronto Star newspaper in To complete the reorganiso- Canada showed that VDUs have tion, AT&T le buying the stock it no harmful effects on users.

# Burroughs' **B900 family**

BURROUGHS has filled the gaping hole between its new B90 and B1900 smell business computers with the first model in a

First model in

At present announced only in the US, the B920 is a multiple processor machine with an architecture which looks aimilar to that of Honeywell's new DPS 4 (CW, June 12). Thought to be similar to that used in the CP8400 and 8500 communications processora, the B900 family uses processors dedicated to eystem control, compilation and execution, file handling and communications.

# arrives

moin memory with the minimum configuration, costing \$60,500 in the US, ollocating

it works like a magnetic tape carridge drive but is far more compact than either e cartridge unit or floppy disc drive. It is far

Mons for Pat end Apple machinae will be here by

which can hold up to 80,000

grams from the Bg0-800-1800 to the B90-900-1900 family - provided of course that the machine to which it is used has adequate capacity for the software. Better

Languagas supported on tha B920 are Cobol and RPG II First US shipments are set for

PRICE-cutting of Pot end Apple systems at the New Barnet computer etore. Compshop. I causing a row with both UK distributors, Commodora UK

gloom over receding employment prospects in South Wates, Ferrenti

Computer Bystems has sited a de-eign, development and research unit at Ty Coch, Cwmbren. The yet to be completed centre has pro-duced its first product, on Argus

M700 development system for use in testing end analysis of the

tem processor, 64K-bytee for the and Microsense. file hondler, 128K-bytee esch for They accuse Companop, tha tack processors ond 64Knon-authorized dazler, of dercutting their desiers and bytes for the communicatione leading potential users astray by seiling US models direct and not providing a aufficient support If the CMS Computer Management System operating software hae been used, there le

complete transferability of pro-Compahop wae involved in onother row earlier this year with Clive Sinciair when it marketed a cheaper copy of tha ZXg0, esiled MicroAce, Thia resulted in Compshop obtaining
US morketing rights for its system in kit form and Sincials getting 5% royalty on all sales (CW,

June 12), According to maneging director Chrie Cary, Compshop offera mance than B800 machinear. I vice compared to one costing

system; and degree engineers to provide service rother than

system. On the right is N. D. Pen fold, plant manager.

'Micro shop undercutting dealers' row

Neverthaless, Compshop la successfully cerrying out its business selling Apples and Pets imported from the US, soys Cery. He would not reveol his sources, but did point out that Compshop is an Apple dealer in

the US.
It le this good business that lo ceusing the problems. Steve Brawer, a director of Microsense, says that the price undercutting, which Compshop is able to do because units are chaeper in the US, is taking business from its authorised declares.

"Wa have had deolers com plaining to us about a certain computer alon in New Bernet,"
he told Computer Weekly,
Brewer is issuing a werning to
potential Apple users not to buy
"rogue" Applet at this discount

Theae "rogue" Applas, he claims, are "not Europius models" and are therefore incompatible with the UK mains; supply end televisions.

"Not so," sald Kevin Hawkins. an enginear at Compshop. "We sell a new ravised version of the

has autostart ROM and Apple-soft in ROM," he said. This ver-sion has an eutotransformer ready fitted and comprieea a printed circuit board which allows the frequency to be altered from 60-50Hz with a single connection change. It can also be operated with UK black and

## 'First' claim for CMG mini

WHAT is cloimed to be the first public sector and insurance stand-alone interactive inveating componies currently synaling stand-alone interactive invests, sector and alone interactive invests, componies currently running ment portfolio management on their system is now being sold by portfolio management on their CMG, the Computer Management company's mainfraine nr ment Group, Called Invest 3, it on a bureau like CMG.

runs on Computer Automatian's Firms with manual systems commercial and weer system chuld also be threrested because Syfe and was developed in the complete hardware, house by the Provincial Insusoftware package casts about mace Co.

Invest 3 is hased on the invest

Potential customers for invest 2-batch portfolio management 3 are metally penalon fund service that CMC mas for investigations are made on the investigation of the investigat

## TEXAS INSTRUMENTS TIBIO TIB25 TI765 TIB20 TI745 TI74 Quine PRINTERS READING 589393

CENTRAL COMPLTER AND TELECOMMUNICATIONS AGENCY
RIVERWALK HOUSE LONDOR SW1
MIGROCOMPUTER BRANCH HEF. NO CP 5/4/CW

# OCR-Bestseller from Feller

Feller's optical readlers are in operation for order service, lineacial, bookkeeping, stall data control, skock control, control data, delivery note control, address statistics, accounting ato: in banks, market research, stallstich surveys, calculation, monutecturing planning, mater reading, tally rolls reading.

Informatik

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OF Improormation opin Problem that their Obtobers of the personnel opin their management of the personnel opin their management of their management o

## I can see a beolutoly no ad- put out to tander for the supply Come off it, Claire! Not just

see whet use it le to the govern-

The sge of the enormoue, de-

except for ganuine number-

orunching activities. Where

there is no need for vaat stores of central foed records, e more

modési. localised access to com-

puting power is far more apprn-

I READ with intersat Claire Gooding's article about Forward Computing's Macro Expansion no way does it provide the facilities of DDS.

article: ICL's Data Dictionary System and Dataskil's Super Computer planning Cobol are competing with one

Committee Aventy is award Disput a the following the Disput in the The Editor Course in the The Editor Course Stamford Strapt Stamford Strapt

computer planning The Automobile Association Basingstoke

Melvyn Morris, co-outhor of

priete, tt is, incidentally, far less prone to vaet over-run in time and money, notural disaster, in-

tages like thot, who needs dia dustrisi ection and ao on.

Cloire Gooding points out that the oldin conserning MEL and DDS was in quotation marks, and attributed to MEL. She doesn't necessarily believe everything she quotes, and recommends that her

readers don't either

#### vantage in having my records ovallable, online, enywhere in the country, and I can't reolly of a suitably "devolved"; minicomputer network, which would allow quite e number of British firme, not just ICL to get It should then select holf a dicated computer le euraly over. dozen of these for a triel period

in guinea-pig tax offices, end allow them, within o broad specificetion of their raquirements, to develop their own

A final choice of the complete contract could then be made on a besis of considerable confidence that the best solution **DELIA VENABLES** 

SINCE South African political policies ere becoming a bit of a long-running serial in your letters column, could Computer Weekly not widen the whole subject by introducing comment on Russian policies in its subjugated territories of Czechoslovekia, Eest Germany,

Hungary and Poland? And don't let any of your readers fool you by pointing out that Russia supports the black races; it has abund political reason for so doing, of course, in somebody else's Continent!

Apartheid marely means

segregation of and by implication untair discrimina-tion between races. Colour doesn't come into'lt.
DEREK BRADLEY

See and disher

20) TRIBUTIONS from readers are welgoing for our cellumn of the transe things people think and shy should computers, We will pay 65 (are such from we publish.

You was a first war of the second of the series of t

## TOPS door ajar to older trainees I am glad to learn from Brian graduste mothers. Out Fat

Petterson's latter (CW, July 31) thet there le ot least one TOPS course-running organisation where people over 33 are not regerded as too old to learn pro-

whom era actively looking for

LA34

LA120

So, as your headline to Brist You will be interested to know that my earlier letter (CW, July 3) brought invourable replies from two employers, both of

Wilkes Computing

for Terminals

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latter says, the doors in its closed to older traineds; that it say, pending further news the GEORGE PENEL National Computing Contr

LA180

7009

5/55

British mail order house with

olher en American count

msnufecturer (no, not lister

A NEW form of deta storage device called the "atringy lioppy" is now evailable in the UK from MBS Terminale of Byffeet; Surrey. .

ster than o cassette unit while costing less than 2200. The stringy floppy is already valiable for uss with the Tandy TRS-80 microcomputer and yer-

il takes the form of a minla princes the min of a number of a princes card and only 3/16 in.

at and store date at a rete of bytes in three seconda

The arrived seconda:

this month and the B920 is a one-year guarantee compared

the arrived Hoppy can plug claimed to offer between two to Microsense's three months; a

thin the bus of the host and eight times better perform free 24-hour meintenance aer-

RING Brospa Data

GOVERNMENT COMPUTER REQUIREMENTS

With the transpanieties of the tip and of the market (less than £13.000). It installation in the last quarter of 1880 in the Microgramputer Branch. The Acquister, substitute will be swarded contracts for subsequent substantial will be swarded contracts for subsequent substantial for these systems which may erise it government Dependent to a least the following twelve months:

1. The first propriet of the Operational Requirements should be sent to the propriet of the Operational Requirements and the sent to the Operational Requirements and the sent to the Operational Requirements and the Section Contract Constant (Contract Constant). Contract Constant (Contract Constant), and the substantial Contract Constant). The contract Constant Constant









**New UK chief for Burroughs** 

meneging director of Bur-

roughs, Bob Akors le retur-

ning to the US to become

corporate director of mor-

koting operations at Detroit

haadquattara. Taking over

from Akers is Lauris Rushton

pictured left) o Briton who

hae been regional manager in

charge of Burroughs opara-tions in Northarn Europe

It is thought that Data Resources has according to US Resources plans to follow other hig US bureaux like ADP and National CSS in offering its pro-

bottom of Burroughs' large-scale mainframe line and are nut prietary software on hardware installed at customer sites, and mini with the same end in view.

Electrical wholesaler picks NCR for network

## Downtime

## Genial wisdom

yet another venture nimed of conquering the world and especially IBM, is certainly doing nothing to dispel the reputntion computer people have for obfuscation. He describes fils new enterprise as having "on orientation much more tnwards what'l think is optimal for the future."

He seems in aome confusina over his fluancial status. He inly the Financial Times. "I didn't have much stack to Amdahl," while to the Wall Street Journal he said his holdings were "pretty good sized." is there some subtle transatlantic difference in langunge here, or could there be u-sinister political significance?

I was talking to a friend of his a few years ago, who what .tn call the plug-

GENE Amdohl, starting nut on compatible processor firm he was founding. "No question about it, Gene," the friend tald him. "Ynu've got th call it the Amdahl Corporation. That way if there's a boardrnum revulution there's no way they can fire ynu.'

In the event the friend's paranola was redundant, as Gene left thrnugh ill-health.

some bluck employees of IBM have been holding demonstraoffices, cumplaining that they are being discriminated puzzlement to the New York pnlice, who enuid not underatund how these pende in sombre sults and tles child be demonstrators

#### Sombre note

1 HEAR from New York that tions in front of the compony's was the last time you tried to

noon? It can't have occurred to TASS that most people taka an hour off on Friday afternoor already. If they take another, the bosses still won't be there manager being worried about a blt of extra delay in something, I shall die of shock.



## **FOCUS**

## Time to help the disabled

often suggestad, is one where free enterprise flourlahes, cutthroat competition stalks and few holds are barred. The successful companies strike-it rich and go to the top end of the charts while the othera miss several turna or go to the DP

But it is becoming necessary for the industry to take some regard for the world around them. There should be rather more to computing activities than establishing record ordar booka and associated balance sheeta. Alongalde the competitive thrust of the vendors, users and professional DP teams, there exiata room for curing Illa and redressing some of the more human problems of

There can be few more human

Fortunetely not all parthe Industry establish the problem with Indiffer ICL notably sponson in for the disabled at Elizabeth College. Weekly Itself donates the ceeds of the Annual But at BCC Specialist Grant to BCS Specialist Group for

But other support is the NCC spears to some allowance for the day George Penney, who are minds the Threshold com ment scheme, makes ne of the handicapped in his wise excellent book, ACC

Happly the British Come Society is concerned use activities in promoting the of the disabled are probably tification alone for its easier Next year has been design

Implications. The district general will, I hope, benefits

such industry-inspired design

manta as specially defe

nousehold controls and

Invalid carriages. The comp.

abled are more than a ket p

need special help if they are to slip evan further behind.

behind the rest of the feet is

accused of Inertis to his still. Let us hope they in the action mode in respect

installations YES, the volcano in our picture the Intamstional Yeard is is the notorious Mount St Helena and, according to US publica-tion Business Week, it is playing group for the disabled had with Dr. Adrian Side chairman of the IYDF Tele havoc with many computer inlogy group on several project stallations in the Pacific North-Helping the disabled with could well, of course, have be

West of the US Ash fall-out is the real cause of the trouble according to tales of woe related to Business Week by local computer users. It is clog-ging air filters, wreeking the surfaces of disc platters and even penetrating the projective coverson floppy discs.
Firms outside the compuler

**Volcano slows** 

industry are also in trouble with Camation Edods having to close

it provides. Its agreement is with the Chino State Administration speciolist, Westcode Systems, has won o £1.1 million cautract of the Computer Industry. Univae already has four 1100/ for a centralised monituring system to be installed on a 10s approved by CoCom, the free world body which vets high form in the Magnus Fleld of the

North Sea, Wesdoc, Weatcode's hardcountries - and they are already installed in China. The ware and software package, will link with three PDP-11/70 sysfifth is therefore unlikely to present approval problems. Ambitious projecta proposed

monitor

tems and provide real time

long-term agreements with

the Chinese, becouse the politi-

cal direction of the country is

subject to violent fluctuations,

and companies caught out by the Iranian revolution could bli

INDUSTRIAL autnmation

similar problems in China.

Oil platform

WHOLESALE electricol distributor the Sellers Group is to Newcastle to Birminghum. speed up its urder princessing Terminals will be placed at the system with a network based nn group's 16 warehouses, enabling

**US bureau to get first B5900s** 

where (CW, August 14).

ight NCR machines. staff to enter orders and answer customer Inaulries about outtembased on a DEC PDP-11, the standing orders and stock levels. three NCR I-E270s and five I-Central files will be updated at 8251s, valued at £400,000, will be the end of each working day

FIRST of the new Burroughs

B5900 mainframes are going to

US time sharing bureau Data

Resources Inc. according to US

paper Electronic News.

installed at installutions from when local systems link up with an 1-8270 at the group's Leeds

yet formally announced any that the B5900s are wanted for

changes and eustonier credit status will be relayed down the line to local systems of the start

his corear with Surroughs in

1952 at the company's

Birminghom kranch. In 1982

na joined Burroughs UK

1970 hecama UK aetoe deve

He was general manegor o

tha Burrougha company in South Africa from 1972 to

116nt inanagar.

## TASS plan to aid by Chad the unemployed own dynamic industry) to do anything on a Friday after-

TASS News and Journol: "In-land Revenue should buy ICL". Great idea! ICL is making plenty of profit these days. If it all went to the Treasury we would all have to pay less tax, right? I fear the proposal will get little sympathy from Mag-gle and Sir Keith, though, despite their longing to reduce taxes. They could hardly accept a plan from such a source, chuld they? Not Invented Here works in govern-

TASS has annther idea it is putting to the TUC in Brightnn. To help the unemployed, we should all take an hour off work on Friday afternoon without permission. This would force employers to take nn more staff to get the work Is there anything about this notion that bothers you? When

"You forgot to leave the dirty fingerprints on the screen, get someone (outside your

#### GILB'S MYTHODOLOGY

IT had to happen finally — a whole book on program maintenanca! Who knows? Maybe maintenance will now even be taught as a subject to designers and programmera, using material from this book.

Of the 42 signed contributions, readers of this column will recognise five of my Mythodoogles on maintainability, others being contributed by such wellknown names in the field as Barry Boehin, Gerald Weinberg, Edward Yourdon and Glan Myers. What new insights do thay bring to the old problams of

maintenance? Daniel Freedman and Gerald Velnberg discuss "Maintenance reviews and management" (they wrota a whole book on reviews and inspections available from the same publisher). Ask yourself the following quantion: Do all program and aystam changes go through a formal review procesa which la as atringent as Fagan's IBM Inspection? If not, I suspect that you are paying far mora than it would cost you to do such Inspections. Freedman and Walnberg argua for a separation of production (development) and maintenance reviews. The give a checklist for potential

Priority

Stephan Steams of Bell Labs ahares his experiences in "Can-tralised maintenance of a large application system" (200 online and 300 batch Cobol programs). He introduces a Severity Code (I = total digruption, while 41s hinor, problème) for giving ity to maintenance raquiprocessor Four.

systems only available at 216,250

## Source-book on program maintenance

naw bugs during program changes, which are introduced in order to allow increased me of use of the program. The resulting evil circle is difficult to control but "Increased testing of new relansea" la sugg-eated as a medicing.

Othar authora would have recommended changing inspec-tion, and parhaps Beil would today, but the paper refers to experiences at Bell predating its own use of the Inspection

> on present what they call Tha Method aa a problem-solving technique in program debugging and maintanance: Briefly, it trica to gathar information in aharp "Is/Is not" catagorias. Thia la comparad to giving a blood hound a aniff at the robbar's cap: it gives a battar trail to fol-low. The idaa looks interesting and surely it must, if applied, aid the unorganised mind. It is a shame that no experimental this method compared with other approaches. Certainly here is a small challange for tha computer : selence : studant looking for some useful research

The concept of "high runnar" here into a aingle procedural here into a aingle procedural here into a aingle procedural handbook of non-conflicting sood ideas in this area. I would want sequests. This is explained say, "Rollow this and things will a because of the introduction of get much better".

into error perception tachno-

TEN TEARS AGO

A.R. Brown and W.A. Samp-

\*Techniques of Program and System Maintenance, edited by G. Parikh. 289 pages. \$25. Ethnotech Inc. Box. 6627. Lincoln, New England, USA-68506. ISBN 0-933950-58-6,

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ferminal Display Systems Ltd

· May I humbly auggest that your methods dopartment be provided with a copy of this with the assignment of trying to distil some specific new idens for mprovement of prasent prac-

So what is to be done? It major computer organisms whethar manufacilises. pliers, consultants, bursen You could form an Internal recruitment agencies on ba atudy group with the objective of reading and discussing tha more than more money ha book, both with a view towards eded. A helping hand should extanded in the shape of the participants' further training and development, and towards Thare can be few large companies which cannot tha hope that some of the ideas might bounca off Into practical at least one disabled pros

#### ALTHOUGH (EM is supplying 15 regional and one sentral computer for China's census next year (CW, June 12), the Jepanese government is to provide software specialists to work on the project. The harddown its French fry plants in Washington State due to ash contamination. Children's art competition at Computastars finals

Univac aims at

toe-hold in China

ctivide training in computer engineering, programming, operations and usage.

now emerged as a front-runner with plans to Install its own 1100/10 mainframe in Peking and

The move is seen as an

stiempt to pre-empt its rivols,

led by France and Jupan, by

educating a generation of

Chinese computer professionals

on its own hardware in the hope

that they will subsequently put

Univac first on their list when

Training

Univac is installing the

mainframe ond providing initial

staffing at its own expense, but

will be pald for the training that

by the French government and

computer industry have been

discussed with the Chinese

government, involving esta-

bilshment of computer manufacturing plants in China. As yet, these have not come to

A substantial risk is involved

Japanese aid

looking for new hardware.

Olympics, Computantars 80. able. Called Computartists, it will be Ov Judged in two groups. Under 10a and Over 10s. Computer Weekly Mior Simoo Timm will be one

The final will be held at the putar Weekly and the Dutch lew Alexander Stadium, Perry , Birmingham on Saturday. dember 13. It atarts at 10 am admission is £1 for adults

SAFE Computing ta to sponsor organisers.

In art competition for spectators' and competitors' children non-alcoholic rafreshments as a food will also be avail-

are to be awarded to Computastars compatitors. Computastara is sponsored by right Air Conditioning, Com-

Over £3,000 worth of prizas

magazina Computable.
Tha gremling wara at work again last week when, in the Computastara ticket coupon, wa d to for children. Ticketa are finadvertently gave the wrong



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COMPUTER PRODUCTS LIVINED

# Filling jobs from untapped sources

of the urgent need for skilled people to do programming and analysis wurk. We nisn know that trulnees do not fit the blil. even if they have put in their time doing a TOPS or any other kind of course.

industry needs people quickly with certain specific skills. Those who have been trained in Cobol or Basic may be very good and probably think that they are competent programmers, but employers don't wunt to spend time and money "outraining" these people and teaching them the skills required to do the work they need.

So where dn they go? A recent US report draws attention tu companies over there who are experimenting in recruitment. They are taking staff from previously untnpped sourcas; something the UK's Manpower Services Commission urgos us to do in this country if wa are to solve the great computer staff

Strangely enough, the groups of people that the US companies recruited from arc those wa have already looked at on thia page, and asked why they were not given a greater chance.

They include the disabled, part-time workers and the housebound. The Wella Fargo Bank in California has 35 disab-led staff working in its DP

Most of these employees are severely disabled; that is blind, montally retarded, deal, autistic and those suffering from savere

#### Success

The bank claims that its recruitment policy has been a great success, to the extent that other employaes of tha bank have started taking sign langu-

All employees have a career path morped out for them whan thay start, so they don't fall into a "dead end" job, as do many isabled people once thay have found amployment.

been the policy of the bank for seven years and it maintains that the staff are industrious, efficient, loyal, and good workmates.

Another policy adopted in the US is that of taking traincea from school rather than university. The prnbiem of being undertrained is nowhere near as great as If they were trained in

nppropriate skills. Potentially, school leavera who have studied some computer science and programming nt school have the background and usually the interest to make good DP staff.

This group, of course, is taken on with the eye to the future and connot solva immediate shortagea. A number of people however particularly wumen but niso house-bound men or one-parent familles of either sex\_are fully trained programmers but are simply unable to leave the house for long periods.

Several working arrange-ments can be conceived to tap

become a standard joke thesa

days. Bureaucratic, petty, slow inefficient ... most of these dascriptions are rather hackneyed, as is the continual complaint

against filling in forms, uaually associated with the Civil Ser-

tirely at home or working on-A housewife might want to

work only during those hours when her children are at school, or when they can be looked after by someone else. Alternatively she may, be-cause of smaller children, be

unable to leave the house et all. In this case she could be supplied with a terminal in the home.

#### Convenient

F International, founded by Mrs Steve Shirley, hos bean uaing these people for some years in a very successful and highly regorded company.

There are many occasions where an employee is forced to leave work for some reason. Surely they could continue to do some useful work at home, or even put in a few hours a week on-sita at mutually convenient

For this kind of work, ments can be conceived to tap this valuable resource of talent, tracted on a project basis rather

How 'red tape' hampers Civil



Mrs Stave Shirley of F international has been successfully using es for programming fo

than a work-hour baals, which nakes it easy for someone who hes other commitments to fit the

work in when possible.

These are just three specific groups of paople who could make the staffing problem a little lighter. The trouble seems to lie with the employar, not the

In many casee he is frightened of taking on staff through unconventional means and contimes to advertise and look for the atereotyped programmer. with three years' experience.

When are employers going to wake up to the altuation and realise that if they do want a job done, they will have to widen their horizona, or not get it done

It is one of the faw employere

which does not like taking on graduates of TOPS program-

We would like to hear from

The DDS User Group has published a report of its proceedings, and this opens with a list of 54 actions it wants ICL to take on DDS, among them the call for support on the older iCL hardware. It says that by the and of last year, 12 had been implemented or acted upon.

other aupported operating sya-

The answer from ICL is that

the DDS will be supported under

TME on the ME29, and under

the 1900 George operating system both native and under DME,

However, nothing is planned

for Syetem 4 users, led by the

and Multijob, or for 2903/4 or

Post Office, who want it under J

by the end of the year.

Syatem Ten usera.

The raport highlights tha value of DDS as a conversion ald, and aaya thot users and potential users ahould be made aware of this banefit.

"The dictionary can be used to monitor a convarsion exercise and to document the changes

## Two more evaluation tools

CMF-VS1 is aimed at system ning and capacity planning for IBM 370, 303X and compatible computers running under the VSI operating system, Releasa THE Reality operating systam marketed by a dietributor in the has proved so attractive that More recent versions of the operating system have appeared on Honcywell Level 6 minicomputers. Assembled by Ultimate Corp, they are marketed in the UK as the Ultimate system by

## Mancial pack on UK market

R PPS (friancial planning words that generate models and lase may be the most ax graphs; PPL dialms that two last market, but it is days training is sufficient for the most powerful, claims; efficient use of the package. the must powerful claims the mist powerful claims the mist powerful claims.

Barketing it in the UK (CW. The packags already has over the interest of the US and the constraint of the Sand Stoved to be easy to use ware including Honaywell in sugar ware including Honaywell in sugar with English key—Hewlett Packard and Harris.

RING Brospa Data FOR ADDS VIDEO'S READING 589393

# ICL takes account Writers of the on Data Dictionary | software should use it'

Systems' office in Slough and you will find that the girl at tha reception desk has a terminal within reach — ae do the secretaries upstairs, the managera, sod the director of the European

or. Mortin Weters. They are all using Reliance II. Perkin Elmer's vanture into the US earlier this year.

"I fust refused to ait down with a hend held calculator to work out another year'a budget," explained Watars, "and believe that the people who write the software ahould usa

The product's forerunnar, Reliance I, was launchad 18 months ago, pulling to gather the Cobol, transaction proceeding and database software for Perkin-Elmar's 32-bit "euper-

Reliance II la a more ambilious project, with word processing facilities and an associated quary language) 1032 it represents PEDS' first major push to win a commercial market for its machines, and a deperture from its traditional Lite all PEDS' aoftware pro-

system baing developed for DEC'e larger machine, Vax.

Meanwhile PEDS, which la confidant enough to quote a 1.4

Meanwhile PEDS, which la confidant enough to quote a 1.4 where PEDS devotes a taam of 50 to Reliance development.

matic middle ground; to get it right without taking forevar at

The query languaga follows

sald Waters.

As well as being a devalop-ment tool, Rallance is used at confident enough to quote a 1.4 performance improvement on Vax for Ita 3240 in US adver-PEDS for sacratorial jobs, documentation euch as printing manuals, for managerial tasks tlaing, charges £8,600 for Relionce to firet-time users. This such as forecasting, and is Includes hardware. The user group is auggeeting finding new applications all the tima. The recaptionist will soon Improvaments all the time. For be using it to trace the availability of pool cars. instance we have added security Improvements aince Reliance I and daveloped the query langu-aga. But wa've chosen tha prag-

#### Own tools

"in evarything we do we use our own tools," said Waters, "and wa'ra tha most critical that we have. If we find a naed for something, than so will the rest of our users."

The typical targat of the product is the large company or systems house using Cobol, with a need to produce applications aoftware as wall as running a database and controlling

transactions.
PEDS is entaring a market which is awaiting the IBM Systam 38, and lamanting Trax, Digital Equipment's transaction processing aoftware. Trax'e poor complaints by users and a new

Universal Computers and EDP

In the US, Pick is rewriting tha

ADDS is the subject of a

takeover bid by Mitel Corp of Canada, CMC-UK is wholly-

owned by Microdata, in turn

operation system for the Zilog Z8000 16-bit microprocessor on behalf of Applied Digital Data Systems, ADDS.

## More versions of Reality ops system on way

residus of it are available from several companies — and more are on the way.

Usially credited to Richard "Dick" Pick, it was originally sweloped under a US government contract, and Pick put it into microcode for US minimaker Microdata.

Microdata sells it in the UK lifeugli CMC UK, a company it chured after the original US computer Mechinery Company of centrated.

Microdata licensed its early. Microdata, In turn owned by Microdata, In turn wholly owned by McDonnell wholly owned by McDonnell Douglas Corp.

CMC-UK has no connection with CMC Europe, which is now owned by Rediffusion, parent of the middle with Microdata, but base were acquired by Pertec, now owned by Triumph-Adier of



any terminal, and sevaral levels

of password control.

A useful feature is the desk

top "Puesycet" printer which providee hard copy of scroen

ayouta. Tha eystem damands

little in the way of "operational

akilis", guiding the user through by linking screene and areas of

Although the majority of

Reliance users are in the US at

tha moment, PEDS haa won

orders in Australia, the Middle East and the UK.

A MICROCOMPUTER version the Unix operating system which costs about a twentieth of the price asked by the system's riginators, Western Electric,

has been developed by a com-psny in Chicago, Mark Williams. Written in the Unix language "C", the Mark Williams aystem, called Coherent, at present works on Digital Equipment PDP it-34s, and machines based nn Intel 8086, Zliog 8000 and Motorola 0800 micros

Furthar plans include a ver sion for the Digital Equipment Vnx mochine, and mainframe

Back is already supported, and compilers for portable Pascal and Ansi 77 Fortron are on the way.

Mark Williams' president Bnb
Swartz described Coherent as "a
state of the art operating system
whose design uses the techno-

it's a total implementation of

**Unix micro version** for 20th of price was the starting point and we

by Claire Gooding

work up to five times faster than Pointing out that the software was proprietorial rather than obeying the usual Unix licensing arrangement, he added "If ICL nr other manufacturers were interested we would supply it on

itlee, as well as speed. it can

#### Licence

The licence for an object-code version of Coherent casts \$1,500 per machine, with a small monthly charge far maintenance. The full-acale Unix licence costs \$28,000 for source code.

Unix, a time sharing nperating systam with extansively developed utilities, has long been tha larling of PDP-11 users, and has recently won popularity in the microcomputer industry.

## We can deliver our complete range of business systems at competitive prices. Series 5000 128 K - 256 KB Memory Up to 20 terminals Up to 1000 MB Disk Scries 1000 ● 64 K - 256 KB Memoty ● 120 CPS to 900 LPM Printers. ● Magtape option Up to 7 Terminals Price: £23,000 - £90,000. • Delvery: 4 - 6. Weeks ■ Up to 20 MB Disk ● Maglape option ● Price: £15,000 - £30,000 Series 700 ■ 64 KB Memory ● VDCI and Keyboard: (20 CPS Printer • 10 MB Disk Price from £12,000 Series 3000 ● 128K--286KBMen Clo to 8 Terminals Series 6700 256 KB rd MB Memory • Up to 50 Torninss • Up to 1000 MB Disk Cip to 250 MB Disk 120 CPS to 600 LPM Printers ● Minglape option - £40,000 ● 120 CPS to 900 LPM Printers ● Megtape option ■ Price: £80,000 - £200,000 ● Delvery 5 - 8 Weeks ◆ Delivery: 4 ÷ 6 Weeks. Witerns end Hardware — Comprehensive : Programs and Software — Creative indineering and Back up — Complete Systims — Tomorrow's needla, packaged today

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Cumbriá House, Hockliffe Street, Laighton Buzzárd; Badfordshire, LU7.8HE,

Service programming skills Software housea usually have previous experience of the type of work they are tackling, while a public sector team would have

to start from scratch. Efficient software houses are often forced, they say, to aell their goods abroad when they could easily be of use in the UK.

The latest complaint comea from software houses, of all For programmers working in the public eector, this might places. They claim that thay are seem a tittle unfair. But if you are one of those people, you will know that ekill and afficiency is being prevented from getting large government contracts because the Civil Sarvice unions maintain that thie work should

oftan hampared by "rad tape" and the bureaucracy for which the Civil Service is notorious.

Recently we discussed how government cuts are affecting programmers working in the public asctor, in particular the Health Service, Yet unions insist that programming jobs should Their argument goes that t bay have the expertise, so the job could be done quicker and better that programming jobs should be done by these people.

#### Pay survey

Programmers in the public aector also earn algnificantly less than their peers in private industry. We learnt last week from a pay aurvey that IBM is the third best company in the

UK as regarde pay, with an in the uK as regarde pay, with an in this "skeletal" square root exaverage salary of 28,503. It is then seen that has been replaced with an X. The overyone chould go and work only clue offered is that the root for IBM which is no mean task. Itself is an even number. See page But providedly, it is also difficult 30 for solution.

Civil Service.

X X X X. XX XX XX XX XXX XX XX

XXXXX X XX XX X XX XX

## Do we need unions?-

WITH all this talk of unions, it would be interesting to find autiquation with more and provided in such things as negotiating payideals is often auperfluous to one. Until recently, only DP at all who who pred in government mataliations were union members.

These days this far more common for programmers to loin unions such as ASIMS or Angs, even it lifely workers the provided grant and were reasonable in the first national dispute which he company. They belie a one-day aronage in support of their claim, and were reasonable in the first national dispute which he company. They belie a one-day aronage in support of their claim, and were reasonable in the first national dispute which he company. They belie a one-day aronage in support of their claim, and were reasonable in the first national dispute which he company. They belie a one-day aronage in support of their claim, and were reasonable in the first national dispute which he company. They belie a one-day aronage in support of their claim, and were reasonable in the first national dispute which he company. They belie a one-day aronage in support of their claim, and were reasonable in the first national dispute which he company. They belie a one-day aronage in support of their claim, and were reasonable in the first national dispute which he company. They belie a one-day aronage in support of their claim, and were reasonable in the first national dispute which he company. They belie a one-day aronage in support of their claim, and were reasonable in the first national dispute which he company. They belie a one-day aronage in support of their claim, and were reasonable in the first national dispute which he company. They belie a one-day aronage in support of their claim, and were reasonable in the first national dispute.

#### SOFTWARE FILE of user demands THE problems that ICL faces made during the exercise; with demand for new software asys. "At the and ole contents." from users of its older products has surfaced again, this time in connection with the Data Dictionary System, DDS. And this time, ICL is on the way to meeting most of the demands. The dictionary, which is used The report contains a we with the IDMS database

exercise, the dictionary conin full documentation of the te verted systems if used in the te outlined in the report, and it serves as a useful base for hem

of valuable user experience w management eystem, was writ-DDS, including core stade ten from scratch and has been from the Ministry of Defend available under VME/B for Crisp Inventory Control project hree years and under VME/K NMW Computers. Membera of the DDS Uaer West Midlends Gas is party Group are now clamouring for it to be available under all iCL's

larly enthusiastic in its cook alona: "We found that the M offers an excellent basis storaga and retrieval of co puter design and programmi documentation, it has more be reliable in use and perio mance has not been a problem

#### Extensions

The Gas Board goes of list extensions it would be ace, and concludes: "We hope ace the DDS as the centre futura data management p ducts and believe that it will be In reducing the effort is deloping programs."

NMW Computers is a eudden fallure and is print larly critical of the sould "Training non-existently

programmere," It notes less "Using the ICL data skristers edited by A. T. Windsor, 100 pt Di (Ells airmail). Shive Published W (CW). 9 Clareville Road, Only S BR5 1RU.

programmers who work for the Civil Service. Do they agree with the claim of UK software housed that government contracts. THE line of performance evaluation tools sold by the European chould go to tham, because they Software Company under tha are better equipped and better name Comprehanalve Manogegeared towards certain projects mant Focility has gained two than public eector program.

At the same time the Mi version of the tool has been be hanced with new report of measure TSO. usage said effects on eystem perferment TESC also announced ly CMF-MVS has been entit to be compatible with ill is sions of MVS through System Extension 2.



H1400/1500 RANGE OF VOUS PRICES PROM # 475 TALLY T1612 KSR (180 C.P.S. PRINTE

TERMINAL) WITH PRICE 1512 MANAGEMENT 286-27 Berlow May No.
CONTROL /pro-Marchester May 284
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4th Freer, billion House, 54/80 Userope
Leining Landor We 2717, Tel (1): 840 338

IBM scientists at the Thomas J. Wetson Rescerch Centre in Yorktown Heights. Based on e cryogenic Josephson sempling technique, it will be used by IBM in its research effort to apply Josephson junctions to computer technology.

## Circuit design courses

THREE une-year MSc courses in integrated circuit design are due to stort in October at Edinburgh University, the University of Munchester'a Institute Of Science and Technulogy and diutly at Brunel thninpton Universities.

i unded by the Science Research Council, the coursea will run in collaboration with the inleroelectronics industry. They will involve pructical work so that the student will oversea the production process of an integroted circuit from its design to its resilastion on to allicon.

As recommended in 1979 by an SRC panel chaired by Derek Roberts, director of the GEC Hirst Research Centre, the SRC is providing essistance to the courses. Funds will be evailable for necessary equipment and the students will have accase to computer aided design and electron beam lithography facilities et the Rutherford and Applaton is boratories and to the SRCaupported silloon processing fecilities at Edinburgh and Southampton Universities

#### Games boom may peak

SALES of microprocesor based electronic games in the US are expected to reach #1 billion in their first year, up from \$40 million in their first year, 1878, say Equation Securities Analysis, Seturation level for handheld games is expected to be reached this Christmas.

The scientists claim to have measured fast waveforms of amplitudes os small as 120 microvoits using the new tech-

nique. This represents an improvement in sensitivity of oround 20 times. Resolution has also heen improved from 25 picoseconde to six. Scientists believe that when thu switching speed of Josephsnn tunnel junctions is inproved the resolution will

The instrument, or sampling oscilloscope, digitally somples periodic waveforms to project o reproduction or image of the signol shepe on to the screen so that messurements can be made. It is only by cryogenically generating these fast electrical aignais, which are otherwise virtually impossible to mesaure, that meosurements can be

Attempts at measuring these signals with an ordinery sampling oscilloscope would require high frequency interface to bring the signels back to room temperature. Convarsely, a similar interface would be requlred to bring o fast room tem-pereture signal into the

## Samples of 16K EEPROM

SAMPLES of Hitechi'e 16K EEPROM (electricelly erasable: and progremmeble reed only memory) are expected in the UK thia month. Volume deliveries are plenned for the end of tha

The HN48016, available from Dielogue Marketing in Bourne End, Bucks, hes a maximum eccess time of 350 nanoseconde and is compatible with existing isk bit EPROMs. It is capable of 1,000 program and erase cyclas. cryogenic environment for measurement with the Joseph-

son sampling oscilloscope. In its Josephson junction computer research, IBM needs a technique for messuring fast periodic signals that are already in the cryogenic environment (temperature of liquid hellum: -269degrees Centigrade). The Insephson sampling technique has been invented and patented by the IBM researcher, Sadeg

Many other potontial applica-

tists to make nonequilibrium will be in London. suparconductivity measuresteady-atate, to obtain data on auperconductivity parameters.

Scientiats say the Josephson asmpilng technique might be expendable to meeauring waveforms other than electrical signals, es Josaphson junctions are sansitive to optical signals.

supplying the company's new double denaity disc controller

from September at no extra cost

for two monthe. The controllar

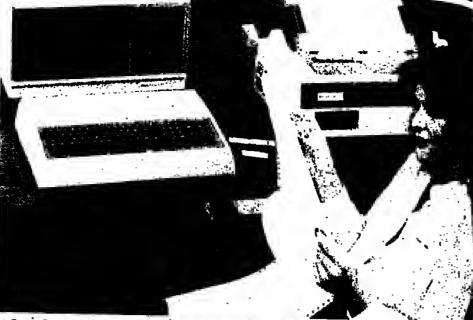
designated ifFDC, will be aveil-

eble with sil three eystems in the

and Z2H, but will provide the

greatast enhancement to the

omemco renga, System 2, 3



The Sanyo System 7000 Z80-besed microcomputer will be available from 22 declare throughout he in basic price of £4,545 e 32K RAM and 580K floppy disc version can be bought, or dealers will be offered be

# and solid state physics fielde, says iBM, but the company itself is considering using the technique to investigate the company itself.

que to investigate dynamic characteristics of Josephson juncSOLE UK distributor for the Japanese Sanyo Systam 7000 Z80-based microcomputer, Memory Computers, is forming a dealer network end a Sampling of cryogenic maintenance service. Dealers are to ba set up at 22 ws veforms could enable scian- locations throughout the UK, and four of theae

Field maintenance will be carried out by Sysments in the translent sists, tems Maintenance Service (SMS) of Feltham at a rether than in the more normal charge of 12-13% of system value annually. Incharge of 12-13% of systam value annually. Initisily SMS will cover the Manchester, Bristol, London, Glasgow and Coventry areas, but this will

eventually be extended to sight areas in total. SMS, which also mainteins IBM systams, gusranteea a four to eight hour response for on-call repairs and has e full spares facility. Thras of its 40 enginears are already undergoing training with the System 7000, at Memory Computers in

Memory Computers told Computer-Weit that it plans to provide maintenance facilities systams still under guarantee at its new factor Inchley from September. Systems from Sark European distributor in France will be checken at the factory end undergo 48-hour confirm

For e basic cost of £4,545, tha System 70% as with 32K of RAM and 560K of floppy disc bill can be extended for an extra £3,000 to 84K MM. and 4M bytes of floppy. Memory Compand dealers will be offering a leasing option, all m staff training as standard. Software package, payroll, invoicing and atock control will be able in 514 inch floppy disc format for small

#### Advice for new users AN independent odvisory ser- e softwere and hardware put

buying their first computer has been set up in Lewes, Suesex by software consultent, Delio Ven-For eround £300, four or five most cliants up to now his times less then e bureau would

cherge, e consultent epends a day investigating the client's e wide renge of sreas included business end ettempts to metch menufacturing.

### COURSES

DATA Training has introduced a series of courses for IBM users. Tha courses are for Cobol programming sind are designed to cover practicel aspects of program writing, including basic programming skills, epecification onalysis, otherting if techniques, programming language, job control end debugging. The 370 earles courses are of five wasks in the control end debugging. The 370 earles course are of five wasks in the control end debugging. The 370 earles courses are of five wasks in the control end debugging. The 370 earles courses are of five wasks in the control end debugging. The 370 earles courses are of five wasks in the control end debugging. The 370 earles courses are of five wasks and processing it costs the data processing it costs the data processing it costs the control end debugging. The 370 earles courses are of five wasks and bill in Californite by Plassey Peripheral Systems and now being sold here by the Northempton-based UK and of the proper work in the process of the process of the control end of

District of the property of th

Brospa Data

# Small systems for Navy's big ships

ABOUT 100 of the Royal Navy's bigger ships are to be equipped with small computer systems for general onboard administration under a project colled Oasis, Onboard ADP Support in Ships, and the contract looks like going to a non-UK based supplier (CW, August 21). According to the Ministry of Defence, mechinea from four suppliers are currently being walusted. All are firms with some menufacturing cepebility in the UK but are not UK-owned.

At the same time MoD is carrying out tests to check that the commercial kit being considered can withstand the rigoura of shipboard life.
If none of the hardware under evaluation can stand up to pro-

DG version

of Impcon

from Bunzl

IMPCON, the manufacturing

control system airsady avails bie

on Digital Equipment based sys-tems from Bunzl and Systime is

now being sold in an updated version by Cable and Wireless

subsidiary UK Services, on Data

Developed originally in Basic for DEC hardware by softwere

consultants Computer Systems Development, Impcon has been rewritten by CSD in the CS

series interactive Cobol. Accor-

ding to UKS the new vereion

offers much more extensive

malerial requirements pisnning

facilities than the original:Basic

Impcon - which stands for

comes with modules for han-

ding parts control, etock loce-

tion, purchases works orders, movements, bills of meterisis,

work in progress and costing.

prices for the total package that start at sround £40,000. The

Impeon modules run undar Içoa,

ateractive Cobol Operating

UKS has e well established

heid service operation covering most of the UK, providing third

parly maintenance ee wall as servicing its own axisting base of Data Gansral Nove and

General CS series hardwere:

blems like vibration and electromagnatic interference, the MoD moy be forced to buy much more expensive ruggediscd Applications for the Oasis

systema will include stock control, pey and personnel and maintenance management. The plan is to have the first Installed

The MoD is also looking at the possibility of systems for RAF stations that will combine generel administration with command and control on the basia that the two functions are Interdependent. For example certsin types of stores may be needed et a time of mobilisation. The MoD siso aays that it is

investigeting the whole area of office autometion, including electronic mail and word pro cessing, but is "approaching in

#### laventory Management and Production Control - siso Calculator tested in Outback It can be supplied by UKS on any of the three biggest CS eystems — the CS 50, 60 end 70 — at

THE durebility of Hewlett-Pockerd's HP-41C progrem-meble calculetor la being put to the test on en 8,000-mile journay ecross Australie. Outback '80 is e joint Britlah-Auetrelien milltary expedition which will teke four months to complete.

The expedition is relying on estro-navigation, using theodolites to check progress. The HP-41C will be used for the

# and magnetic stripe readers

HEWLETT PACKARD has added more facilities to its renge of desta capture terminals. The HP 2076A desk top and 3076A well inburied terminals, The HP 307pA cean top our reader, helpfied terminals are now evallable with bar code reader, helpfie stripe reader, and two new stendard interfeces; the HP IB and RS 232 C

The HP IB and Rs 232 C in the terminals to £100,000 system

squipment Europe's largest motor auction firm, has ordered a £100,000 DPS teminal is also available with a be installed at the firm's Farm ham it stipe feater. Sirrey headquarters

COMPUTER WEEKLY, August 28, 19

## NCR banking on success of on- and offline terminals

NCR has introduced two terminals for online and offline use in building societies and banks. The NCR 2261 can operate as an offline data capture device using cassette, or an online transaction data input and inquiry terminat

Features include a high level parameter language. 16 programmable keys, a 40 column printer, and input forms can be displayed to help the user through rarely-used transactions

#### Security

Replacing the NCR 270 terminal, the 2270 may be used by up to four branch staff, each with tris/her own identification code for security purposes. The 2270 comes with 10 programmable keys and

two printers. The 40 column printer pmvides u journal enpy of each transaction while the 90 column ilevice updates the cusmer's pass book

Optional features on the 2261 include a magnetic stripe reader and personal identification number keypad for reading and verlfying customer identification Information from plastic

# Our picture shows the NCR 2270 in use at the South uf England Bullding Society's Shepherd's Bush branch in West

#### **COMPANY NEWS**

# ICL sees little threat CW SHARES TABLE

THE imminent and of the government's single tender purchasing policy with iCL for excluded under the GATI code, government's single tender purchasing policy with iCL for mainfreme computers looks in-creasingly like a trivial problem for the compeny, ICL says that single tandar business eccounts

A DOMESTIC telex service csl-

led Intertext has been launched

In the US by ITT Domestic

Tronanission Systems and is the telecommunication glant's first entry into thie market in over 40

Previously, the US domestic

telex market was dominated by

Western Union with Tymnet

and Telenet making minor ad-

Initially, the intertext service will be available in Boston, Chi-

cago, Detroit, Houeton and Los

vances into it

ebout £40 million in the year that ends in December. This ties in with figures from the Miniatry of Defence, which says that It is spending about £28 million on hardwars, thet at least two-thirds of this is spent with ICL, and that MoD com-

for about 51/2% of turnover, or

puting eccounts for about helf of vernment computing. From iCL'a point of view, the

FiRST helf results from Wyly Corp, pareot company of the University Computing Com-pany, were effsoted drameti-cally by \$25 million received from telecommunications giant. AT&T, under sn entf-trust Merch 27). The \$25 million was treated as a gain from discon-

tinued operations.
After deducting the \$25 mil-After deducting the \$25 million and also an extraordinary credit of \$13.3 million requiring from the utilisation of US and foreign tax loss carryforwards, first half profits at Wyly dame to \$3.6 million, more than twice the figure for the first half of 1979 First half turnover jumped from \$41.4 million in 1979 to \$56.9 million this year.

In its anti-trust case, Wyly alleged that AT&T adjusted its rates to make Wyly ill-fated microwave data transmission service, Datran, uncompetitive.

microwave data transmission service Dalram uncompetitive. The case was settled put of court with no admission of court with no admission of liebility having been meds. Under the agreement AT&T paid a colai pt 350 million from which Wyly anded up with \$25 million after giving \$1125 million to the Datren trustee and covering its own legal costs.

megsword of secondary

memory. Renders with long

memories will recall that the

PDP-15 is an 18-bit word

machine. Fully competible with the DEC RF15-RS09 fixed head

disc, the Datarnm BC-205 bulk core is claimed to give a

"drametic" improvement in sys-

# in tendering change

Life in the old 'dog' yet

the worldwide western egreament on public procurement, end la aiso pertielly excluded under the EEC directives on computer purchasing. The codes also exclude research and deve-lopment epplications and thesa

THERE is steady business to be

done in prolonging the setive

life of sgeing computers, and Sintrom Electronics is affering

Digital Equipment PDP-15 users some transplant surgery.

Sintrom hae introduced bulk

core backing storage for PDP-

iss which offers up to a

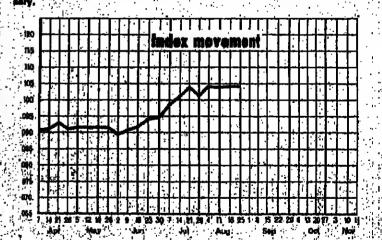
represent e substantiei part of MoD computer applications. So ICL is likely to continue to get almost half of the business i now gets under single tender now gets under single tender, putting perhaps 3% of its total business at risk: But with, epart from the PAYE system, few completely new projects baing mounted by government, compatibility requirements are likely to see the replacament systems going to ICL in most rases.

Wyly boost trom antitrust case

cases.

Even if the company, on a very pesaimistic prognosis, held on to only helf of the remaining government business, only 14% of the company's turnover of the company's turnover would be at risk through atringent adherence to the rules—say £12 million in the first year of operation of the policy.

Clearly no company likes to loss high the self would not maily have held, but balancing the networks in the company with a restall loss of business in the potential loss of business in the UK is the prospect of gains



BASE MOVES THE FAST B

# Operations Courses

MVS Basic Operations 10-14 November MVS Advanced Operations 3.7 November. OS/VS JCE (5 Days) 6-10 October and

OS/VS Utilities 3-5 November VSAM/AMS 20-30 October and 10-12 November MVS Dump Analysis 3-5 November

2900 VME/B Basic Operations
27-31 October
2900 VME/B Advanced Operations
20-24 October
Datapoint Operations 1 16th October

Datapoint Operations 2.17th October Advanced Datapoint Operations 18-20 November 4

I would like further information on ) A STATE OF THE STA

And as the second

Let our training take the strain ROC Datasolve

BÖCE alagöke Edükaton, 19 Rochester Row London SW11 A Talephone 01:828 8104.

EDINBURGH besed Cromemco distributor, Microcentre, will be

Free disc control

from Cromemco

Each system comes with 64K of RAM, a Z80 processor board end e printer interfece board. Their mein differences ile in prica and storege capability:
System 2 uses 6 in floopy discs
and costs £2,128; System 3 uses 8
in floopy discs and costs £3,725;
the Z2H has a 10 Mbyte hard disc capacity as well as duel 5 in

By adding a 16FDC to the System 3 its storage capacity is more than doubled to a total of 2.4Mbytes. When used with either the System 3 or the Z2H, their capacities are increesed from 386K-bytes of date to 772K. The controller cen elso run ether single or double density hoards which ere single or double sided. When working in e single sided end single density, the formatting of the disd conthe formatting of the disc con-forms to IBM 3740 standards.

Microcentre expects

Cromemoo to increase the price
of the System 3 by about £200

after the two month period. MICROBITS

HEAD of the 8038 family, Intel's 8051-12 MHz/8-bit microprocessor, which was faunched at this year's NCC, is now available from Rapid Recall in three versions. The 8051 contains EPROM, this 8751 contains EPROM, while the 8031 has no internal program memory.

AN analogue digital convertar his been digigned for use with the Pet personal computer in the Pet personal computer in the Pet personal computer in the Pet personal computer and experiments as a portion means a solution of the company. Holdens is marketing the 12-bit section in the latest and the latest a

same davalopment projecte. Dasigning e database is broken down into four self-contained phases, the first two concerned with techniques of a logical level-the second two with physical considerations, The course is being haid in London and costs 2320 4 VAT.

Further information can be obtained from Kathleen Joly LBMS. 24. Newman Street, London WIP. 3HB. Tel; 01-637 9699;

A SERIES of courses on computer stuff, and contrait and security are being fun by Control Data Institute. They are designed to provide basic and edwarded computer related training for accountains and financial managers. Among the courses offered era Computer Appreciation, September 3, 5, and Auditing of Data Captures and in the Westmber 8, 2. The courses offered era Computer Appreciation, September 3, 5, and Auditing of Data Captures and in the Westmber 8, 2. The courses offered era Computer Appreciation, September 8, 2. The courses offered era Computer appreciation Courses, and easy building and the Course of the Westmber 8, 2. The courses of the Auditing and Data Can the September 8, 2. The course of the Course of the Westmber 10, 10 and 10 an

SCREENS 213 **READING 589393** 

#### **PEOPLE** and **EVENTS**

## Top sales executive wins trip to Bahamas

SAI FSMAN Bill Banyon has won a five day trip for two to the Hahamas. The prize was given to Benyan for his outstanding sales performance. by Automatic Data Processing, and the owned was presented by Donald

Boyt, ADP's countaing director. Benyon, with rither successful sales executives from around the world, are brought together annually by the company in recognition of their achievement. The venue this year is the Bahamas Princess Rotel

#### **Full members**

David Webstar and John Qual-through have been regraded in full members of the Institute of Data Processing Management, Webster is managing director and chatman of Alimia Systems at St. Albans, Qual-trough, of Cheltenhum, is executive

Jim Yoomana has joined Data Logic's word processing division as sales executive. He was previously

executives will be congrotulated by the curpuration president. John Weston, for their contribution to the fiscal year 1980.

Apart from looking forward to the expected sunshine, Benyon is glad of the opportunity to meet other sales executives. "I'm looking forward to an exchange of information. #Nitudes and ideas with them all." hc

He joined ADP three months agn, after ten yeurs' sales and sales managenient experience.

Dr Sieven Forte, tuanuging dirac-tor of American Microsyatems, Europo will be expanding his duties to include AMI seles throughnut Europe, and management of the de-sign centre in Swindon, John sign centre in Swindon, John Richardson has becoma vicemarketing group, having respon-sibility for oil sales and marketing support in the US and the Far East.

Neil Williams has been appointed manager of Viking Recruitment heving worked pravioualy int Knight Computer Services es not-

COMPUTER WEEKLY

is holding its

AnuaBall

on Friday October 10 at the

Royal Lancaster Hotel, London

Cabaret

RAY ALLEN and LORD CHARLES



SWEDA Imemational's golf team is one of 45 teams which took part in the Taunton Pro/Am Golf Tournement. Drgenleed by Teunton Boroug Srilish Telecom from the electronics industry. The Swede teem pro-fessional, Mark Thomas is on the left of the picture, Dther team members are Robin Fisher of Swede, P. R. Pitta of Galeway Foods and Kan Tumer of

#### More golf . . .

Christopher Kay of Mailock has won the Northern England regional haat of the NCR National Long Drivo Golf Championship, with a drive of 228 yards, 6 inches. The runners-up were Gary Furness of North Manchoster and Strom Sherrall of Sheffield nd Simon Sherrall of Sheffield.

All go on to the national final, to be held at Stoke Poges Goll Club on stember 29. The championship is insored by NCR and organised by

#### Auditor's award

A LONDON telephona industry executive has received the Bradford Cadmus Mannoriel Award. Chories Duly, was presented with the eward by the institute of internal Auditors, IIA, for exemplary service.

Duly is a certified internal auditor for Standard Telephonas and Cables and has been a member of the 11A served it sa European West ragional

Stawart Vassia has joined infor-mation Services and Equipment in the technical marketing division.

Mark Cleveen has been named company controller at Mercotor Business Systems in Santa Clere, Californis. He was formarly senior accountant with Main, Hurdman

Diktat has made two management appointments. They are Brian Aspin, support mariager and Roland Hoggerd, special projects manager.
Aspin was formerly an analyst/
programmer. Hoggard has previously worked for AES Wordplex
and Redifon Electronics Systems.

Nigel Bulpitt is now a director of Burrnugha Machines, the British subsidiary of Burroughs Corp. Priur to this appointment he was director to this appointment ne was one of planning and administration of

### DIARY

SEPTEMBER 1-2

Microprocessor workshop. Com-puter Lab, University of Liverpool. SEPTEMBER 3-5 · Logio and miloroprocessor system. design course. Computer Leb. Uni-versity of Liverpool.

SEPTEMBER 7-12 Introduction to smell computer systems in engineering applications, vacation achool, institute of Electrical Engineers, Lendon, Datailet IEE, 01-240 1871.

SEPTEMBER 8: Talk on Portability of Fortran 77.
Dr John Larmouth. BCS Fortran
Group BSC Headquerters, 13 Mansfield Street, London, WI. 10.30 am,

SEPTEMBER 9-16
CAPP-80, typesetting seminer.
Royal Lancaster Hotel, London, Detalls: CAPP-80 Conference Unit, 01-SEPTEMBER 19 ...

Meeting, IBM CUA management group, IBM Computer Users' Association, National Exhibition Centre, Straingham.

Meeting, IBM CUA computer based training sub-group, IBM Computer Users' Association, Bank of Scotland, Edmburgh, Details from Mrs Specials, Tel: (0) 551.1843.

SEPTEMBER 17-18

Meeting, IBM CUA Series I group, IBM Computer Users Association.

While Swan Hotel, Stratferd on-Aven, Details from Mrs Specials.

Tel: (01) 851.1843.

Conference. Computer, security.

ICC, Security Awareness Scheine.

Owen's Park, Manclester. Details from Security Awareness Scheine.

Manager, National Computing Centre, Option Road, Manchester.

Missing, IBM CUA Manchester.

Meeting, IBM CUA Manchester.

Association, County Hall, Newsich, Details from Mrs Specials Tel: (01) 251.1843.

SEPTEMBER 28-26

Westing, IBM CUA Programming Group, IBM Computer Users Association, County Hall, Newsich, Details from Mrs Specials Tel: (01) 251.1843.

SEPTEMBER 28-26

Westing, IBM CUA Programming Group, IBM Computer Users Association, Use Vers Hotel; Covening Chup, IBM Computer Users Association, IBM Computer Users Association and IBM Computer Users Association and IBM Computer Users Association and IBM Computer Users Association

## **OP SPOT** Mixed fortunes

Threshold men

Within three months John will

be made up to the position of

operator, and three months

later, experienced or senior

**Promotion** 

"You can only be made up to shift leader if the shift leader

goes to another installation", he

He hopes, one day, to move

John Thompson, the other

NCC Threshold student fea-

tured in Op Spot, has not been

quite so lucky. The 17-year-old

from St Helens la currently

seeking a position as junior

"i've been along to the careers office and the job centra but nothing hes turned up yet, I'll

giva it e couple of months, then

I'll have to look for jobs outside computing.

Jack Bell, the person who is

responsible for the personnel and industry placement side of the NCC Threshold courses at St

Helens College of Technology

commented: "Both of the lads

did wall on the courae and passed all their exams. I'm glad to say that John Greggor is ell

the waight of the hardcopy

Having done that he should

then consider auch factora as

devica, spaed, quelity of

- and whether the model cen

accommodate the necessary

ourchase is, of course, vary

manufacturers offer e variaty of

leasa, purchasa, maintenenca

He should ask the site con-

Agine near St Helens to the alte liked up but John Thompson will tally in the like it is a second to be a secon

Importance of the

low-speed printer

That happaned to me on print — which is sometimas leveral occasions. Ridiculous, found wanting on such devices

The point is that some important The manager should manufacturers and user alter bear in mind that some

operator in the industry.

into programming but "not for a long time yet because I enjoy the

trainee operator at T. S. Hughes, a general store in Liverpool.

Well pleased with the place-

ment, the 19-year-old Greggor,

told me: "I spent six weeks at the

There were three of us and,

at the beginning, the manager

told us there were two lobs

going, I was offered one of the

positions and was glad to accept

Formerly an engineering

apprentice, Greggor is now the

junior partner of a two-man

shift team operating a Honey-well Level 64 system on a two-

He went on: "T. S. Hughes is

owned by the Owen Owen group of stores so really f work for

them. The machine la at T. S.

Hughes' site, though.
"We elso have an NCR

machine - I'm not aure what

model it is - and we use it to

siberdata sent down lines from

Part of the job

"It's a bit of a nulsence when

you've finished the work bul

lare lostay down the ilnes. Still,

On the shift pattern employed at the Instellation, the said: "Days are from 7:45 in the mor-

ling till 4:00 in the afternoon.

lico et night. By trein it takes

me about an hour to get from my

AVE you ever worked on a

arge system which has come to.

standstill as e result of the

ant ribbon on the herdcopy log becoming tangled up in the print dechanism?

That happaned to me on

ou, might think, thet auch a

can stop a system running; say, 10 batch dobs as well as pro-

ingly Insignificant device

is part of the job, Isn't It?"

site during the course.

shift rota basis.

AN ORDER worth £800.000 ver the next three yeers to ADP hee been pleased by Alcan Aluminium UK.

Aleminium UK.

ADP will provide Alcen with its own internetionally evallable time sharing earvice, through ADP's network. It is ADP's enth European on-eite inetalle-

Big deal

Alsen Aluminium has been ADP's citent since the nerly Seventies, using DEC System 10-based service.

The egreement wee signed by Brien Tytherleigh, managing director of ADP network systams UK and Europe, and Eric Hollowey, corporate systems manager of Alcan Aluminium

Denis Hoey has been appointed oustomer services branch supervisor for Redifon's Northern branch. He Chris Tofa has joined latered puter Systems at general sia manager. Ha was formerly a ax executive covering the North di-gland for Digico. Tofa is a membral the institute of Purchasing addejoined lite company as a customer engineer for the Southern branch in 1878, and moved to the Northern branch a year later as senior angin-

Mike Hardwidge, he's boen sppointed manoging director of APL Plus. He joined from Garmany where have been promoted withis the aubsidiary. Colin Zarda, protes ha ran the company's operation, heving started it threa years ago. now special accounts managed

Drinkwater has been promo asles executive to manager in M

> Frank Srown hat he appointed a consultant in George Consultant to Woolworks are on computer systems, propositions and standard for the consultant to the con Grice has teken up the post having previously worked vide on a stock control promise Colonel Foods, a franchise # 14

Maicolm Bappe hat ben pe moted to sales manager in Ho has worked as sales eage responsible for the South of Eq. for the past five years.

# Liveware the

I'VE JUST HAD A. CARPET FIRM ONT



THEY WANT ON MICROCHIP SESIEN

BUT TO USE THE



Pay great attention to sophisti-caled hardware end software, TEXTILE PRODUCT

siled hardware end software, bit fall to realise the importance and discount plana.

If such down to earth devices The manager is also advised to seek out existing users of low speed printers and to ask why manager in how to select low they aelected the equipment speed printers is given in Data manager on the operatione specific printers is given in Data Centre Dielog, a part of Augredick's data centre operations management services

speed countered, and the standard of meintenance and support provided by the menufacturer. The author disc discusses the physical size of the units, the availability of delivery schedule and technical sopport.

The manager should first availability of delivery schedule and technical sopport.

The manager should first availability of delivery schedule and technical sopport.

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The manager should first availability of delivery schedule and technical sopport.

prime importance are the sponse to my request of Spot 1.

and quantity of output to visit and feature in the Op Spot 1.

pointed the ampling of will both contage with the res-

in job stakes for NO job-hunting problems for John Greggor: the former NCC Threshold student was fixed up with a job in the industry long before completing his course at St Helens College of Technology. After 42 weeks of study and practical work based on the BEC/TEC National Certificate syllebus, John is now employed es a

> White John Gregger was fixed up with a job before completing his NCC Throshold course, fellow ooking for work in the Merseyside The two students ere shown

during the course which was run et 81 Helene Collegn of Trichnology. Just in case any nites on Mer-sayside are looking to recruit staff at jurior lavel. Thompson as n bn contacted at 63 Brookelde Avenue, Eccleston St Holene Marsayalde. Tel: 0744 32874.

chance to move into programming

PROGRESSION from opera - courses will start at Harrow on tions to applications programning is something which many in the industry, myself included, view with mixed feelings.

On the one hand it enables operations staff to get off shift work, but on the other it is debatable whether such a move makes good use of skills acqnired in the computer room en-

A widely-held view is that operations skills are bcat mployed in oreas such as technical support, operationa support, systems programming, operutions troining, monage. ment and supervisory positions.

However, many operators are operators comea as good news.

October 20 and run for eight Ron Hunnibal, marketing

nanager of Alian D'Morias said: The aptitude test is of a pretty high standard and they have to undergo an intensive interview. They will also be under survey

throughout the enurse."
Successful applicants will study Cobni and Basic with hands-on Ilme on Commodore Pets and Doto General equip-

Sold Hunnihal: "We're going to want between 15 and 20 students on the course and, if I is succeasful, we will run others positions in the industry."

pringramming, so the fact that So if you're no operator who is Allan D'Morlas, a software keen on becoming an applicahouse and consultancy at Har- Ilons programmer contact John row, is to run a TOPS program- Reld, Education Manager, Allan ming course for experienced D'Morlas and Associates, Equit The first in a series of pilot Middlesex. Tel 01-863 0631.

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€Kodak

wet-chemical development.

Not even developer and toner – this laser printer is completely dry. So now the speed and economy of COM itself can be applied in the computer room to dumps and SYSOUT where conventional photographic COM was just not suitable.

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devices there is no

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Cormpany Address Jelephone No.

# the patronage of the British Computer

GENERAL BOIL Order form

Tickets are available at £19 for a single ticket. Inclinated in the price is a diamet, comparet and Janting until 2 3.4

Computer Weekly is holding its fifth annual Ball. Last year nearly 700 yeaple

the computer industry's big night hist.

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attended what has come to be reserved as

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with the computer industry.

friends and colleagues.

The complete that wide form should be considered to the considered



director

Chris Scorey has become technical director of Westcode Equipment authorities of the Rocklet Thompson Group. He like Rachford-Thompson as a proper mer and systems analyst, and po

to the new appointment was

Two Centronics sales are

THE public relations departments associated with gas regions throughout the UK have had to do more than their fair share of overtime over the past two years or so - since it appeared at one time that almost every explosion was associated with a gas leak.

Just laiely, the image has had to he refurhished for a totally different reason — the seemingly unjustifinble rise in gas prices, even when the gas industry as a whole is making extensive profits. The rensons are, of course, political and heve little to do with the management of the gas industry

in fact at least one purt of this industry, the South Eastern gas region, or SEGAS, is one of the most dedicated and enthusiastic users of computer-based financial modelling techniques of the most dedicated and enthusiastic users of computer-based financial modelling techniques marketing modulos to eccurately forecast exploitation of the field.

some to know that the objectives for each of the dozen or so gas regions in the UK, of which SEGAS is one, are carefully laid down and have to be closely

As far as its contribution is concerned, SEGAS requires, aspecially in these days of high inflation, the best possible crystel ball, despite the gas industry's record profite in 1979. This best-possible cryatal ball turns out to be a mixture of a financial modelling package, modified where necessory to sult individual users, with computere having interactive facilities.

The computers are an IBM 3032 and an Amdahi 470V 7. The

BM 3032 is used in releprocessing network for customer aervice and accounting, while the Amdahl 470V 7 is used for a similar teleprocessing network but is mainly limited to regional headquarters at Croydon, where the application is program and systems devalopment, operational research and short- and medium-term planning.

The financial package used is FCS (Financial and Corporate planning System) originated and sold by the Brilish firm EPS Concultants of London. Upwards of 500 firms including quite a number in the US end Canada now use this peckage.

One description of the language.

vagant in its use of statements in the functional part of its appli-Main components

its main components are LOGIC and DATA, and the system is row-oriented. Logic contains a sequence of numbered statements which will indicate the terms to be used and their tionship, for example:

> +20 'UNIT PRICE' +25 'VOLUME' +30 'REVENUE' = 'UNIT PRICE' ' 'VOLUME'

DATA allows information to under LOGIC. For axample:

+20 U, 1.2, 1.2, 1.26, 1.3, 1.33 would allow unit data (hence the U) to be entered into Item 20 - that is, unit price.

active mode.

The DP usar takes to this sort of language like a fish to water. and accounting and other staff without eny computar background do not seem to have any great problems in learning and epplying the system. However, to cater for staff who may have problems in absorbing the language as quickly as more DP-oriented ataff and more One description of the langue DP-oriented staff and mora reted historical data in many importantly parhaps, to allow cases, the marketing sub-models of the countants. Basic FCS, new and untrained parsonnel to use up to four years past data so than Basic (which, deapits SEGAS has further packaged bactermined, claims to the contrary, is difficulty in the FCS system so that, where the contrary is difficulty and somowhat less extra-

FIGURE 1 illustrates the integrated planning model, sometimes called the corporate planning model and is heavily VDU screena for use in inter-12 gearegions and by SEGAS is a which managers can run their complex business - and a very The overall SEGAS model is large one. Not only does SEGAS an IPM (Integrated Planning sell natural gas (from the North Sea) and fiquafied gas in vary much smaller quantities from Model), sometimea called the Corporate Planning Model, This is heavily marketing-oriented. places like Algeria and Norway, but it also sells complete cantral haating systems, installing them as can be sean from Figura i. The marketing sub-modala are he driving force bahind the sys-

appliance

charges

eithar directly or through its em and, whereas other SEGAS agents, with cookers, heaters models have not yet incorpo-reted historical data in many cases, the marketing sub-models and other appliancas. Besides the marketing models which effectively determineoverall strategy, the IPM is further influenced by three mafor factors: The philosophy for the IPM and sub-models used

own sub-models; and the speed at which the system, both in part and as a whole, can be pro-

depraciation

lire purchase

The philosophy used is that the sub-modal used in the IPM and the aub-model for the lhdividual group and management taam involvad aheil be identical, but that every eld possible shall be given to the user to facilitate his interactive working. vagant databases and heavy overhead, file manipulation

This interaction is elso important since data generated in one sub-model can ba transferred to other models ea required and finally to finencial interactively; the facility with routines whate the uitimate

REGIONAL CORPORATE PLANNERS

aub-models (copies from (PM)

With Inflation and initial rates still in double figure. greater attention than my needs to be paid toplants can be drafted to minimi overdrafts and short-law

At the South Essiem Ga Board, a small tesm his been set up to develo finencial modelling techni quee and epply them at the

The package used for & velopment gives the isse an eccountant's form Basic which Robert Street saye le far-simpler to us then the language Itself.

Street runs his own conauitancy which aito ha specialization in micros, He wae elao Europaen Editor for Auerbach between 1971 and 1980;

assessment of the SEGAS orecasts is made (see Figure ?) To give some idea of how the works in practice, Model 20 fee aales) requires the total numb of central heating installation generated in Model 10 (cap) heating sales) as input in set tion, Model 20 also requires as direct input - independently all other models - the tou number of initial and replacement sales of all other appliances; average annual co

Interaction

From all this data, the ga

sales model calculates lot

domestic gas sales under a will range of headings and will

output files for other models.

cai, the facility with which the

relevant dapartmental or other

manager can run "his" model

SEGAS can easily package an

interfaces between the mode and the actual user to suil the

user very early — as has been seen by the example of prompts.

What is perhaps even men relavant is that SEGAS has only

a small section, staffed by the

or four experts, who are direct

techniques associated with

This means that the overhead

associated with running the

systam are, expecially with considered relative to its wide.

ness, extremely low.
This whole concept may be

concerned with mode

Since such interaction is co

sumption for all classes of speance; numbers of customers year-end: certain mark **SASTEMS** parameters: historical deti fo trend extrapolations, compet-Isons and output

**NUCLEAR POWER COMPANYLID,** 

RKITAIN'S NUCLEAR POWER COMPANY

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Mr. K.A Sykse, Candidates who wieh to apply for this post should write or this post should be the contraction of the contra leverous relocation package. 164 .of Rof scheme and, for persons moving into the area, a

The Company's conditions of employment include a voluntary pension scheme, 23 days holiday, sick pay will be offered on a scale up to £9,600. consmitment to the job. This will involve unsocial hours of times, and tulure developments could result in on-cell cover. Salary dependent upon experience and scrility.

programming positions, will require a high degree of The post, in common with most system desirable and experience of large IBM systems wown od bluow alsolmiet soll-no sightum ritiw sxtowien and at least some exposure to VAX-11/780, in addition

knowledge and experience of OEC POP-11 systems systems within the Company.

Candidates for this position must have in-depth maintenance and development of computer operating A systems programmer is required to provide, together with a Chief Systems Programmer, a compact together with a Chief Systems Programmer, and the for the and highly professional team folially reasonable for the

compulare, va well as giving considerable in-house compulars, va well as giving considerable in-house These will provide a network linking the strengt bureau headquarters childes with a number of external bureau

The Mucless Power Compeny, a major user of length maintrame computers le shortly to install a number of OEC mini computers, including two VAX 11/780's. XAV HTIW **PROCRAMMING** 

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Univoc.....

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IBM others (specity).

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Pleose specify model.

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Consultani

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Anolysi/programmer

Systems engineer...

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Olhere (specify).....

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TWO pocket size digital Avous the measurement function an meters, the DA211 and DA212, range in use, it costs £65.

are available from BA Elec-

tronies. Both units have a 312 digit liquid erystal display and

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tage, five ranges from 200 millivolts to I kllovolt; for AC the

ranges are either 200 volts or I

ranges between 0 and 2

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incorporate overload protection

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400 sories.

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The printers can produce from one to nine copies at 200 chps with a paper slew rate of 20 inthes per second. A non-volatile memory allows storage of up to eight vertical formats. Users can store formsts from their own data source with a down line loading option on the tele-

Terminet 200 has servo-driven tractors. The print head provides 7x8 dot mstrix character forwition. An optional 9 x 9 matrix permits underlining and lower case descenders. Vertical spacing of six or eight lines per nch is switch selectable and paper width can vary from 4.75 o 15.75 Inches. It costs from

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# SP8 120

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inches and costs about £6,000.

Hatfield (30) 72771.

## Pulse code data acquisition system

A PULSE code modulation data bit rates selectable by means of n jumper on the power supply module connector are slso acquisition system that is based on an Intel PROM chip and uses thick-film hybrid circuit techno-logy has been introduced by Aydin Vector/Controls.

Called MMP-600 series, il allows the number and type of (CW), Andre House, Salisbury Square, Hatfield, AL9 5BH. Tel: inputs to be varied up to a maximum of 510 channels.

A typical MMP1600 system consists of modules for power supply, timer, formatter, pro grammer, sample-and-hold, analogue/digital conversion and end plate, plus one or more multiplexer modules. Each multiplexer unit is fitted

Company of Naw York (CW), ill Park Road, London, NWB vor and provides up to 32 analogue channels or 30 bi-level gates. The system can be expanded by plugging in sdditional

ALFAFLET giving details of the range of self-adhesive tapes item Limpst Tapes has been modules.

Aydin adds that the MMP-600 is designed to accept any mix of single-suded or differential anapublished. Also available is an logue, serial digital, bi-level (parallel-digital or discrete) or

Bit rates are from 1K-bits per second to 1 mblis per second for House, Goodwood Road, Lon-den, SE146BL. Teh 01-692 0131/ 4. high lavel and from 1K-bita per second to 600K-bits per second for low level. Four binary related

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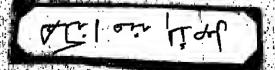


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#### **BOOKS**

## Chess is yardstick for AI progress

burgh University Press (CW), 22 George Square, Edinhurgh EH8 9LF, Tel: 031-667 1011.

CIIESS is now occepted as a yardstick for progress to Artificial Intelligence, if computer chess hus not yet come of age, it is respectable and serious, as shown by inveatigations of the lost few years in this collection of aine papers presented to a 1978 conference in Edinburgh.

Take just two of the tupics: a representation of pattern knowledge in chess endgaines. contrasted with an analysis of iainimax, cunfirms, at least to nu, by their range, the genuine comparability of immao and Artificial Intelligence in the "เนเ row" field of chess.

A promising trend shown in most of the papers is the concentration un small groups of chessmen in the chess andgame. We find valueble results with just three and fuur chess-

depth. Note: the two kings are always included in the "four.

developed for this case (and for queen agalost rook, not covered in this book) have impressed, sometimes confounded, the chessplaying experts. They are, ot the same time, the hope of the Al fraternity in their current emphasis on "knowledge."

researchers. The paper "How hard is the play of the klog-rook-king-knight ending?" Is a case in point. The outhors oppear to believe that pluying this

discussing the limits of human montal copability in the cootext of computer chess in 1980 is surely the most excitleg thing anthology.
JOHN ROYCROFT

Adveocas in computer chess, Volume 2, edited by M. R. B. Clarke, 1-12pp. £7-00. Edio-depth. Note: the two kings are

The play-perfect detahoses

These delahasea seem to offer an ideal basis for collaboration between chessplayers and Al ending perfectly is at or nonr tite limit of human oblity.

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## -Panacea for all ills?-

The threat to industry and the welfere etete. 24pp 20p TUC Publications (CW), Great Russell Street, London WC1B 3LS.

A BOOKLET from the Trades Union Congress has siemmed the present government's economic policies and puts forward en elternstive etrategy based on economic espension, full amployment, import restrictions, industrial domoorscy and s

The TUC bookiet puts great play on the role that naw techn dogy will have to play and coils for new schemes to encourage investment in new products

To pay for this, the TUC suggests that findice from Worth See oil and insursince funde should be mobilized and a more powerful National Enterprise

ment Agencies would be used to stimulate invest-ment and promote employment and the rectructuring of British industry.

A Continental-style Notional Investment Benk I elso proposed clong with moves towards more progressive texation end e toe on windfell profito made by major banks end oil firms.

Howavar, the booklat dose not propose renationalising firms or perte of firms that have been sold off by the present government. It morely points to a more positive role to be played by the present core of nationalised industries which would be used to develop the UK's economic framework and in-

**CHRIS YOUETT** 

# A problem shared across the sea

The Urwick report, edited by Ted Cluff. 49pp. £9.95. Computer Publications (CW), Unit 3, 33 Woodihorpe Road, Ashford, TW15 2RP.

THE title of this report could well have been "A problem shared." The book sets out to prove

that the problems of the UK DP industry are similar to those faced in the US. Having proved this to be the

case, mainly by means of ex-tensive quotations, the book offers no guldelines as to the value, if any, of the findinga.
The knowledge that the DP team io Kenaington shares the same problema aa thoae in

Louisville does not necessarily comfort those closely involved. A major timitation of the book, size spart, is that the survay was confined to 24 organisations — hardly the most representative number on which

to base a meaningful report. Apparently the problema most troubling the respective groups of installations were those of staff ahortages, program maintenance and, porticularly for the UK sample, the problems

of new technology.

At least, those were the problems ruling a year of so ago when the study wos undertakan.

#### Ignored

Had the study been mode at a more recent date on possibly s wider and less formal basis, there is little doubt that the findings would not have been so

predictable.
In the present economic climate, the foremost problems would probably be those of budgetting, closely followed by resource management.

Similarly, isauea totally ignored in the published auryey would now include security.

privacy and the growing awaraness of the benefits of the PCM independent suppliars.

Confidence by both the general public and the DP industry is not exactly helped by such auryeys which only promote the problem areas of compatible of the same of

opportunities being generated by the industry.

Less attention to programmar salary scales and more to the benefits of communication net-work facilities would have been

welcome.
Meanwhile, problems do not seem to have been limited to the DP industry. Editor. Ted Cluft has been unable to define a clear.

pas been unable to define a clear beginning, middle or end atructure to the report.

Out major problem area at least to the prospective purchaser of the book is that of value for money. Lacking even an index and running to less than 50 pages, the book is priced at 20 pa page. Or for US readers, epopoximately 8 cents at current conversion rates.

ALAN SIMPSON

## Giving robots serious treatment

Roboia in industry, by 6 t Simons. 218pp. £10. kg Publications (CW), Ozfer Rosd, Manchester, Mi 70 Tel: 061-228 6333.

THE gradual transition in the public lonage of the robot fron tio man to builder of Fair. perhaps an acknowledgment of the fact that robot ongineering now a respectable discipline:

It is now possible to public books which can desi with tech nicsi sapects of the subject without being obliged to include 18th Century automala, Riv and dinner table clerk

This book is one of the firmer give s serious trestment practical robots and is an intro duction to the technology applications of industrial rele

By this is meant manipulated which do s repetitive heading task under automslic contr without human Intervention The book does not deal with the any extent, robot vehicles human-controlled manipula

Performance

Chapters cover aumben is stalled and economic aspets typical models and their personance; mechanical features sensory systems; programming and control; and application & classification of UK supplies is

appended.
The book will be found until as a guide to the current stated industrial robot technology is Europe, Japan and the US u well as an index to aupplier set. publications. It is up to determ brings together a lot of other wise scattered information

However, caution must b exercised in assessing he design in the desi

The book often seems retor uncritical. For example, chapter on aensory system consists to a lorge extent of string of brial reports of pro-jects, sometimes derived has magezine articles rather this the original source and the fore, subject to an unknown of

gree of error.
The section would have been strengthened by a comparise the various systems described and an assessment of the gree of development and set

puting.

The respective taiants of the compilars would surally have been better served by charting the progress, achievements and opportunities below the progress achievements and opportunities below the progress achievements and opportunities below the progress of all kinds at the consent of all kinds at the some evidence for the sta ence to "sllicon chips" at an ponents of all kinds are kind ponents of all kinds are to journalists, seem to be a seen to be a see and industrial intercourse whe artificial machine at least as tellingant and capable as our selves.

At \$10 the book seems rails expensive: for the might expect drawings in addition tographs. Certain point the manufacture of the manufact

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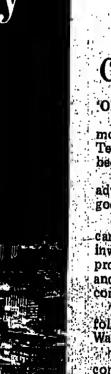
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Morrison works for the electronics applications division of the Department of Industry as a member of the Microprocessors Applications

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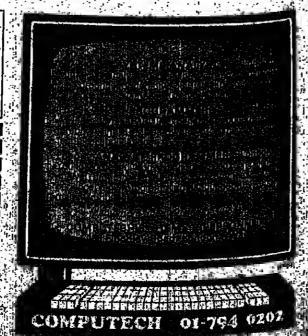
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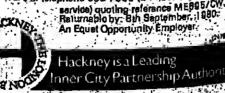
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particular benefit available Whitehall symbours. Its a praspective recruits. While the feutures were, hind a desk as a perpetual

by and large, equally manipulator of statistics. attractive, it came as no **Memoronda**. He surprise to me that by far should not devote his ie biggest response was to activity to the issuing of the intertisement aimed at callets and memoranda sidesmen aspiring to enter trather than gelting out ratio sales management.

when asked "What will be Gette of the boys. With the the next stage in your car-eer?" typically declare their them! ambitions for advancing • Pupier, He must be able into soles management, to stand on his own leet, lowever, more often than Having established his own not, this response comes objectives, he must be able over us a reflex oction of to manage without rushing sometime wishing to say the huck for his boss for help "right thing" as opposed to every five minutes.
the revelation of a well • Status. He should not

considered salos strategy, worry too much about The transition from whether the decur of his salesman to manager is not office truly befits his stutus!

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The allitudes of both salesmen and their peers on this change of uccupation (for change II cartoinly isi) Understanding is typically naive. It is as if the fille of manager graphics outomatically initiates a A THREE-DAY Southar entit divine power upon the in-

is because they do not appraciate the difference

a sales manager which furt. Wost Germany on Son make him so radically differential 10-12. Between Sen-

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• Leadership: Being a mentor to his sales force, hol-

ding their respect and generally, developing a high **EXECUTIVES**level of esprif de corps.

Migitual ign. Establishing THE SOFTWARE Info Conobjectives and generally a success-oriented environs:

objectives in the short, long and medium term.

• Monitoring performance.

Being continually in touch with present and fiture performance by individual salesmen and cliquts, and conference will be a software exposition. Salesmen and cliquts, and conference takes place from order to take early liction. September 22-25. Details from third of his time needs to be spent in the field. third of his time needs to be spent in the field).

Businese dwareness.

Business dwareness.

Being constantly nware of SEAS moets in the difference between profitable. Norway.

the street and finding not Most senior salesmen, what the hell's going on.

must not lock himself be-

divine power upon the individual, giving him the skills and, quolities in Computer Graphics will be held in Germany. Monach and Lundenssary for success.

Why do so many sales make known the use and benmen fail to surviva this change of role? Probably it is because they do not ware, software, systems and between heling a sales applications. The sominar is being organised by Frost and Sullivon and will begin at the What are the functions of Canadian Profile Hotel, Frost and Sullivon and Will begin at the Canadian Profile Hotel, Frost and Sullivon and Will begin at the Canadian Profile Hotel, Frost and Sullivon and Will begin at the Canadian Profile Hotel, Frost and Sullivon and Will begin at the Canadian Profile Hotel, Frost and Sullivon and Will begin at the Canadian Profile Hotel, Frost and Sullivon and Will begin at the Canadian Profile Hotel, Frost and Sullivon and Will begin at the Canadian Profile Hotel, Frost and Sullivon and Will begin at the Canadian Profile Hotel, Frost and Sullivon and Will begin at the Canadian Profile Hotel, Frost and Sullivon and Will begin at the Canadian Profile Hotel, Frost and Sullivon and Will begin at the Canadian Profile Hotel, Frost and Sullivon and Will begin at the Canadian Profile Hotel, Frost and Sullivon and Will begin at the Canadian Profile Hotel, Frost and Sullivon and Will begin at the Canadian Profile Hotel, Frost and Sullivon and Will begin at the Canadian Profile Hotel, Frost and Sullivon and Will begin at the Canadian Profile Hotel, Frost and Sullivon and Will begin at the Canadian Profile Hotel, Frost and Sullivon and Will begin at the Canadian Profile Hotel, Frost and Sullivon and Will begin at the Canadian Profile Hotel, Frost and Sullivon and Will begin at the Canadian Profile Hotel, Frost and Sullivon and Will begin at the Canadian Profile Hotel, Frost Andrew Canadi make him so radically dif-ferant from a snlesmon?

What are the things he should be doing?

Direction, Establishing the what, how and where of Hotel. Further details can be obtained from Frost and Sult-

ference is integralised for executives and professionals success-oriented environs executives and professionals concerned with the current and concerned with the current and preneurial flair and creative skills to the full in order to lights of the conforces are discussions ni. priductivity issues afficient in the short, long control, applications of software security and fraud objectives in the sandting terms. cussions of productivity issues, software security and fraud control; applications of soft-ware in the banking, insurance

business

• Education Ensuring the development of the skills of each salesman and himself.

There are of course some things he should not be involved with!

• Supersalesman the should not be rushing the Netherlands.

The Netherlands.

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## **CW Prize Crossword No 7**



Winner of Computer Frid September 12 The Weekly's Prize Crossword winners halmer will be Number 7 is Mr. H. M. published on September Lathern of Victoria 25

Lathem of Victoria Crescent Road, Glasgow who wins £10. Two runners-un are Mr R. Harrigan of Woodlands Grove, Caversham, Boyks and Mr D. M. King of Childeock Hill, Coventy, They both will be getting

Crossword Number 8 will be published on Sentender, 4. Entries should be received at CW's Long don office by first post on the

8 6 2 6 88 16 6 88 16

CONTRACT PROGRAMMER Propremmer with CORAL SE expellence required to work linderess has a full of Al COL will be considered. This is a standard, blue contract to start and of September, places content beginner Jones.

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# Virginia start for mini assembler programmers -

One of the world's top ten professional services groups. with over 200 offices in more than 40 countries, has recently launched a major expansion in the U.K. The American organisation is involved in many varied computer based projects, including energy analysis, software development, micrographics, communications, transportation, urban planning, military, aviation and marine developments and property information services.

The U.K. expansion will cover many of these areas but an immediate need is to establish here an on-line information service for use by estate agents. The system well-proven and very successful in the U.S.A. is based upon Hewlett-Packard 1000 mini computers capable of handling up to 300 terminals via telephone links. A team Is being established to the West of London, near the Thames and immediately 3 Assembler Programmers with 3-5 years experience of working on mini-based communication systems are required to adapt the systems to U.K. requirements. Experience of Assembler for HP minis is not essential but competence in re-entrant coding is.

to £10,000

Initially, it will be necessary for them to spend up to 6 months with the organisation in Virginia to aguire the expertise, with all expenses paid and visas provided.

The team is to be housed, with other key parts of the group, in modern, convenient offices. The environment is dynamic and exciting with many other interesting developments under way - a most exhilarating group to work and grow with.

Our client's requirements are urgent, so please telephone to discuss fully, prior to arranging an initial meeting for those with suitable experience.

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Applicants should be computer professionals with in-depth technical experience of a DBMS in an OS/VSI environment coupled, if possible, with some are genuine consultance or professionals.

knowledge of IDMS and MVS.

These are genuine consultancy opportunities offering well above average benefits within a first class organisation.

Contact: Bev Steven

Sales Executive - Packages

Initial Salary c. 212,000 + car A software organisation renowned for its high quality products and expertise is seeking a sales executive to be responsible for marketing a new range of applications packages. The products are geared to the mini computer level of system and are aimed at the manufacturing distribution industries.

Applicants should have a projessional outlook and a sound computing background with a successful sales record preferably involving packages. Previous experience of ourskey sales, MP hardware and the manufacturing distribution sectors is desirable but not essential.

Contact: Bay Stere

Senior Analyst Financial Systems

Our client is an engineering presnisation forming part of an international group. Current plans involve comprehensive new systems development for the financial and accounting functions and a Schior Systems Analyst is ripw

being sought.
Applicants should have at least 5 years computing experience with emphasis on the design and development of accounting systems. A knowledge of a medium sized IBM main frame environment would be an advantage but the medium sized IBM main frame environment would be an advantage but the applications know how is much more important.

#### North Birmingham

This temputer services division of a large and well known international engineering group have schloved a high level of computerisation over peat years. They have recently embarked on a phase of development aimed at fully utilising current dp practices and technology in order to maintain an effective service. Vacancies exist for:

#### Systems Development Manager

Applicants should ideally be holding a similar position but those having several years experience at a scritor systems level, coupled with prefetably past programming involvement, and essentially current responsibility for many management, will receive scripus consideration.

Systems Project Leader

o. 87,500

At least 8 years systems analysis experience with a blas towards the financial areas and the ability to accept fully project leader responsibilities are a main

Systems Programmer A vacanoy exists in the technical support section for a systems programmen Applicants should have 2 years experience with communications involve-ment, findlendity but not essentially gained in a Univac series 90 OS3 spytronniant.

Contact Mike Guitakei

JAMES BAKER ASSOCIATES, International Personnel Consultants. Gateway House, 50 High Street, Birmingham B4 78Y, Tel: 021-643 7865.

